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TRANSACTIONS

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DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF SOUTH AFRICA (LUCANIDÆ AND SCARABÆIDÆ).

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SUB-FAMILY SERICINÆ.

BODY without scales or truly scale-like hairs; labrum obliterated, ligula emarginate in front, fused with the mentum; maxillæ robust, always pluri-dentate inwardly; antennæ 9 or 10-jointed, number of antennal clubs varying from 3 to 7; abdominal segments always with deep sutures, and seemingly partly free in some cases; hind tibiæ with two spurs, one on each side of the basal joint; anterior coxæ sub-vertical.

This Sub-Family is far from being homogeneous in general appearance, and must be divided into two Tribes.

Hind coxæ broader laterally than the metasternum .. .. SERICINI.

Hind coxæ much narrower than the metasternum .. .. ABLABERINI.

The insects included in the first Tribe have a very peculiar silky or opaline sheen; they have occasionally sub-squamose hairs in the punctures (Sub-Gen. *Lepiserica*), but never scales or squamose hairs as in the HOPLIINÆ or some MELOLONTHINÆ; their general appearance is unlike that of any of the other Scarabæidous insects; the *Ablaberini*, on the other hand, have the

* This volume is a continuation of Vol. XII.

general appearance of Melolonthidous insects, and their vestiture is that of many of the *Pachypodini* or true *Schizonychides*. Doubtless allied to the HOPLIINÆ on one side, and to the MELOLONTHINÆ on the other, the distinctive character of this Sub-Family is to be found in the mode of insertion of the two spurs of the hind tarsi, which are situated one on each side of the basal tarsal joint, sometimes near the outer angle of the dilated apical part, sometimes close to the tarsal joint, but never are the two found on one side of the tarsal joint as in the MELOLONTHINÆ; we have seen that in the SERICINÆ there is only one spur, and as often none at all. Certain genera of the *Ablaberini* are so closely allied to the *Pachypodini*, which I retain in the MELOLONTHINÆ, that but for that character they would have to be included among them, in spite of their having strongly dentate maxillæ. Another character of importance is the complete obliteration of the labrum, which part is always strongly developed in the MELOLONTHINÆ.

TRIBE SERICINI.

Body elongate or very strongly ovate and convex; lateral margin of clypeus either nearly straight or very strongly constricted, anterior one always reflexed and either simple or tri-dentate; eyes divided in front by the genal canthus, and having or not a posterior keel either connected with or disconnected from the genal canthus; prothorax always sloping forward; elytra elongated and then moderately convex, or strongly ampliato-ovate and very convex, covering the propygidium; pygidium wide, vertical in most cases, but sub-horizontal in *Pleophylla;* anterior coxæ almost sub-vertical, intermediate ones narrow and somewhat broadly separated, posterior always very broad, and wider along the sides than the metasternum; femora and tibiæ very compressed, the hind tibiæ often broadly ampliated inwardly, and with two more or less obliterated, slanting, spinose, seldom entire ridges outwardly; hind spurs of the female not ampliated.

Herr Brenske has divided this Tribe into *Sericinæ* and *Trochalinæ*, and has endeavoured to find for them characters which are not common to both. I regret to say that as far as the South African genera and species are concerned, I have been unable to find lines of demarcation between them. Brenske's *Sericinæ* are doubtless, as a whole, of a more elongated form than his *Trochalinæ*,* which are as a rule, but not always, more spherical and shorter; but if we take

* *Cf.* some species of *Ablaberoides*.

such important characters as the shape of the clypeus and the presence or absence of a posterior eye-keel, we find elongated species with a very strongly constricted clypeus and no posterior eye-keel (*Arraphytarsa*, *Allokotarsa*, &c.), and very short and convex species without constricted clypeus and with a posterior eye-keel (*Doleroserica*). Some species of this genus have even the silky sheen of *Serica*, which is replaced by an opaline sheen in *Trochalus*.

The number of antennal joints is either 9 or 10; that of the club is from 3 to 5 in the male (South African species) and of 3 in the female, except in *Microtrachelus*, where it is 4; this club is as long or longer than the pedicel in the male; the claws are cleft, the superior tooth being usually longer and more slender than the lower, which is often stouter in the male than in the female, often membranous or lobe-like, and in some genera, such as *Euronycha*, *Allokotarsa*, *Allogistotarsa*, these claws and also the tarsal joints are most abnormal. I have not met with this peculiarity in the short, spherical, or very convex species.

Some of the genera are very closely allied, others offer good distinctive characters in the male only, in which case the females are very much alike. An examination of the genital armature of the male is as necessary for the division of species as in the RUTELINÆ or MELOLONTHINÆ.

The species known to me are generally met with in somewhat sandy spots, either at dusk or if the sky is overcast. Only a few species occur in the south-western part of the Cape Colony; they seem also to be rare in the eastern provinces of that part of South Africa, becoming more numerous, however, as Natal is reached, and are very abundant in the North-Eastern Transvaal, Rhodesia, and Ovampoland. Many of the species range from Natal to Mossamedes.

Key to the Genera.

A². Eyes divided in front by the genal canthus, and having no posterior keel.

B². Clypeus not constricted laterally, nor tri-dentate in front.

C³. Body elongated or slightly elongato-ovate, moderately convex.

D². Prosternum with an aculeate process.

Antennæ 10-jointed; club of male 6-jointed .. *Pleophylla*.

D¹. Prosternum without an aculeate process.

E². Head with a frontal suture only.

F². Antennæ 10-jointed (normally).

Claws cleft in both sexes, lower tooth wider than the upper.

Anterior tibiæ bi-dentate.

a^2. Antennal club of male 3-jointed.

Mentum broadly deplanated in front, femora broadly dilated .. .. .. *Autoserica.*

Mentum not deplanated in front, femora not broadly dilated .. .. *Nedymoserica.*

a^1. Antennal club of male 4-jointed.

Anterior tibiæ bi-dentate, the four joints of the club equal in length.. *Neoserica.*

Anterior tibiæ tri-dentate, inner joint of the club shorter than the others.. *Etiserica.*

F^1. Antennæ 9-jointed.

a^2. Anterior tibiæ bi- or tri-dentate.

b^2. Anterior tarsi normal, claws normally cleft in both sexes .. .. *Stenoserica.*

The three ultimate joints of anterior tarsi short, triquetrous, last one swollen, lower tooth of inner claw very broadly dilated .. .. *Diaphoroserica.*

a^1. Anterior tibiæ tri-dentate.

Claws normally cleft, lower tooth wider than the upper.

Body glabrous on the upper side, inner margin of hind tibiæ straight *Hyboserica.*

Body with erect bristles on the upper side, inner margin of hind tibiæ slightly ampliate.. .. .. *Philoserica.*

b^1. Claws abnormal in the male.

Anterior tarsi very short, ultimate joint enormously dilated, claws distorted, lower tooth broadly ampliated *Euronycha.*

Anterior claws of male very long and curving under the last joint of the tarsi, penultimate joints short .. *Gryphonycha.*

E^1. Head with a clypeal and a frontal suture.

Anterior tibiæ tri-dentate.

Antennæ 9-jointed.

Antennal club twice the length of the pedicel, and curved .. .. *Idæserica.*

B¹. Clypeus strongly constricted laterally, tri-dentate in front.

C². Body elongated, sub-parallel, very little convex.

Antennæ 10-jointed.

E². Head with a clypeal keel and a frontal suture.

*a*². Anterior tibiæ tri-dentate.

*b*². Clypeal keel triangular.

Clypeus with the outer angles rounded, basal joint of hind tarsi very short .. .. *Camentoserica.*

*b*¹. Clypeal keel straight, set close to the frontal suture.

Anterior part of clypeus divided into two by a longitudinal keel.

*c*². Anterior tibiæ without inner spur in the male.

Joints of anterior tarsi of male broadly dilated transversely, and gradually tapering towards the apex, claws very long and slender .. .. *Allokotarsa.*

*c*¹. Anterior tibiæ with an inner spur in the male.

Anterior tarsi and claws of male normal .. ? *Mesoserica.*

*a*¹. Anterior tibiæ bi-dentate outwardly.

Joints of anterior tarsi of male fused, sub-parallel, sub-aculeate inwardly, last joint slightly wider, sub-parallel .. .. *Arraphytarsa.*

Joints of anterior tarsi of male elongated, slender, cylindrical, and fused together .. *Alogistotarsa.*

E¹. Head with only a frontal suture.

Anterior tibiæ uni-dentate, without inner spur in the male.

Anterior tarsi of male long, partly fused, straight inwardly, slightly rounded at tip outwardly .. *Dolerotarsa.*

C¹. Body ampliato-ovate or sub-spherical, convex or very convex.

Clypeus with only a sharp frontal keel .. .. .. *Trochalus.*

A¹. Eyes divided in front by the genal canthus and having also a posterior keel.

B². Clypeus not constricted laterally nor sharply tri-dentate in front.

C². Posterior eye-keel broadly separated from the genal canthus.

D². Clypeus with only a frontal suture .. .. .. *Doleroserica.*

B¹. Clypeus strongly constricted laterally, usually sharply tridentate in front.

C¹. Posterior eye-keel connected with the genal canthus or only very narrowly separated from it.

D². Clypeus with only a frontal suture.

Antennal club of male 5-jointed .. .. *Microtrochalus.*

D¹. Clypeus with a clypeal carina and a frontal suture.*

Antennal club tri-jointed in both sexes .. .. *Ablaberoides.*

Gen. PLEOPHYLLA, Erichs.

Nat. Ins., iii., 1847, p. 695.

Mentum long, gradually ampliated from the base to the anterior part where it is one-third broader, the angles are much rounded and the edge of the ligular part deeply and arcuately emarginate, the outer face of the ligular part, which is entirely fused with the mentum, is very convex in the centre and impressed on each side; labial palpi long, apical joint slightly rounded towards the apex outwardly, straight inwardly, slightly acuminate in front, apical joint of labial palpi similar in shape but a little longer, maxillæ short, very robust, provided with four strong teeth almost transversely disposed; head as broad as long, with the eyes large, the genæ form only a short canthus and project very little, the clypeus is divided from the frontal part by a transverse impression, and is moderately narrowed laterally, almost straight in front, with the margin not angular in the centre, and the outer angles distinct but not sharp; antennæ 10-jointed and longer than the pedicel in both sexes, third joint of pedicel one-third as long as the club, which is 6-jointed in the male, that of the female is flabellate like that of the male, but 5-jointed, the inner joint, however, is shorter than the one following; prothorax sloping in the anterior part, somewhat attenuated laterally in front, very little sinuate behind, wider across the strongly sinuate base than across the apex, the outer margin has a fringe of long, seriate bristly hairs; scutellum long, ogival, not very sharp at the apex; elytra elongated, slightly sinuate laterally at a short distance from the shoulders, and covering behind the greatest part of the propygidium; anterior coxæ sharply conical and not very slanting; metasternum produced into a conspicuous aculeate process between the intermediate coxæ, hind

* This suture is carinate in *T. æneus* and in *T. tardus.*

coxæ covering the greatest part of the fifth abdominal segment, and with the hind margin running nearly parallel with the lower margin of the latter; anterior tibiæ bi-dentate, anterior tarsi moderately long, intermediate and posterior much longer, claws cleft underneath, the lower tooth slightly wider than the upper; hind coxæ dilated, hind tibiæ slightly ampliated inwardly at a short distance from the base, and with their inner margin provided with numerous long, bristle-like spines, the upper with two tri-spinose keels *en chevron*.

The genus is, so far as is now known, restricted to the South African region. The number of species has been unduly increased owing to one kind having a very wide distribution in South Africa (from the Caledon District in the Cape Colony to the Zoutpansberg District in the Transvaal). In this species (*P. fasciatipennis*, the colouration of which is very variable) the shape of the clasps vary slightly (*vide* pl. xliii., figs. 19, 20; pl. xlvi., fig. 32).

Key to the Species.

A². Elytra with a more or less distinct, fuscous tessellation.

Antennal club fuscous, the first joint half the length of the other in the female .. .. *navicularis.*

Antennal club flavous, the first joint only one-quarter of the length of the other in the female .. .. *maculipennis.*

A¹. Elytra without any traces of fuscous tessellation.

Straw-colour, prothorax iridescent.. .. .. *tongaatsana.*

PLEOPHYLLA NAVICULARIS, Burm.,

Plate XLIII., fig. 21.

Handb. d. Entom., vol. iv., 2, p. 181.

Testaceous-red with a dark greenish-bronze sheen, head and prothorax clothed with appressed greyish-white hairs, and also with long upright ones on the latter part, intervals between the costules of the elytra filled with long greyish setæ, under side densely villose; clypeus deeply and somewhat coarsely punctate, frontal part also punctate but not roughly; antennæ, including the club, reddish and with the latter often slightly infuscate; prothorax aciculate and with scattered punctures bearing each an upright hair, the pubescence is often less dense in the central part of the disk; scutellum raised longitudinally in the centre; elytra elongated, slightly narrower at the shoulders than across the median part, and not narrowed thence

to the rounded apical part, not convex, but gradually sloping towards the apex, strongly costate, the costæ tectiform, with the carinate part smooth and the sides impunctate, the deep but narrow striæ are filled with setigerous punctures impinging on the base of the costæ the smooth part of which is more distinctly metallic and shiny, and there are some darker transverse bands, not defined enough, however, to form a tessellation; pygidium strongly slanting backwards, as hairy as the elytra, scabroso-punctate; under side hairy and bristly as on the upper side; metasternum deeply and very closely punctured and emitting two long spine-like processes between the hind coxæ, abdominal segments with two transverse rows of deep setigerous punctures.

Length 9½–11 mm.; width 5–6 mm.

Hab. Natal (Karkloof, Upper Tongaat, Durban, Maritzburg), Transvaal (Johannesburg, Potchefstroom, Lydenburg, Waterberg, Zoutpansberg).

Pleophylla fasciatipennis, Blanch.,

Plate XLIII., figs. 19, 20; Plate XLVI., fig. 32.

P. ferruginea, Burm., Handl. d. Entom., iv., 1, p. 181.
P. maculipennis, Boh., Ins. Caffr., ii., p. 124.
P. pilosa, Boh., *loc. cit.*, p. 125.
P. flavicornis, Schauz., Nunq. Otios., 1870, p. 232.
P. opalina, Schauf., *loc. cit.*, p. 232.

Smaller than the preceding species, but similarly shaped; ferruginous or light brownish-red, clothed on the upper and under sides with an appressed greyish pubescence, and having also erect setæ on the prothorax; antennæ flavous, the inner joint of the club less than one-third the length of the others in the female; clypeus roughly punctate, frontal part deeply punctate except on the vertex; prothorax very little attenuated laterally near the anterior part, more so in the female, closely punctured, the punctures deep and setigerous; scutellum pubescent laterally, not in the middle; elytra elongated, almost parallel from a short distance from the shoulders to the posterior rounded part, costate, the costæ broadly tectiform and separated by narrow striæ, smooth along the upper edge which s moderately sharp, closely punctate all over, and having on each side five rows of smooth, darker patches, four or five in number, disposed diagonally from near the outer margin towards the suture, these patches, however, are as often as not entirely obliterated or hardly visible; pygidium scabroso-punctate; under side and legs as in *P. navicularis*. I have seen Blanchard's and Boheman's types of

this very variable species, and have ascertained that they are both one kind; Schaufus' description agrees also very well with *P. fasciatipennis*.

Length 7–9 mm.; width $3\frac{1}{4}$–$4\frac{3}{4}$ mm.

Hab. Cape Colony (Riversdale, Knysna, Port Elizabeth, Albany); Natal (Durban, Frere, Eshowe, Upper Tongaats, Van Renen's Pass, Maritzburg); Transvaal (Potchefstroom, Johannesburg, Lydenburg, Waterberg, Zoutpansberg).

Pleophylla tongaatsana, n. spec.,

Plate XLIII., fig. 18.

Very light testaceous, almost straw-colour, the vertex of the head is slightly infuscate, and there are three longitudinal fuscous patches in the discoidal part of the prothorax which is faintly iridescent; in general appearance this species resembles *P. fasciatipennis*, but the elytra are not quite so parallel, the prothorax is wider at the base, and is proportionately narrower in the anterior part; the hairs forming the pubescence are slightly finer, the sculpture is the same, and the punctures on the pygidium also scabrose; the genital armature of the male is, however, of quite a different type from that of the two preceding species; female unknown.

Length 7 mm.; width 4 mm.

Hab. Natal (Upper Tongaats).

Gen. AUTOSERICA, Brenske,

Berl. Ent. Zeits., vol. xlvii., 1902, p. 2; pl. i., fig. 5.

Lepiserica, Brsk., *loc. cit.*, p. 222.

Mentum long, parallel, but slightly broader at the apex than at the base, inciso-emarginate and with the anterior part of the outer face plainly sloping towards the anterior margin; teeth of maxillæ long and sharp; clypeus simple, separated from the head by an arcuate, slightly impressed line; eyes divided by the genæ as far as the median part; antennæ 10-jointed, club tri-jointed in both sexes, either as long or much longer than the pedicel in the male, the two penultimate joints of the pedicel look occasionally as if they were fused, but the suture is always visible under a high power; body elongato-convex, more or less densely sprinkled on the elytra with minute scale-like hairs, but not always; elytra striate, the intervals bearing often sub-erect, very remote, short, bristle-like hairs, which

are, however, very easily rubbed off; anterior tibiæ bi-dentate, anterior tarsi long, slender in both sexes; hind femora wide, compressed; posterior tibiæ ampliated and curved inwardly, the two apical spurs long, but slightly shorter than the basal tarsal joint, apical margin of coxæ moderately slanting, and leaving the angle of the fifth abdominal segment uncovered; claws cleft underneath, the lower tooth wider than the upper, and both equally curved in both sexes.

I consider that the characters of *Lepiserica* are not of sufficient distinctive value to separate the genus from *Autoserica*. The presence of scales in the punctures is after all its main distinctive character, and this varies so much, not only in the species but in the individuals, that it is impossible to say often of two specimens caught in the same locality, and at the same time, if they belong to *Autoserica* or to *Lepiserica*. These species are also so closely allied that only an examination of the genitalia of the male can lead to the identification of most of them. Brenske has described five species, which I have not been able to identify, three of which have 9-jointed antennæ. All the examples which I have examined, often with a high power, have 10-jointed antennæ. In only one female example of *L. lucidula*, Péring., have I found that two joints were so fused that the antennæ appeared to be 9-jointed.

Key to the Species.

A². Elytra not deeply striate.

B². Club of male not longer than the pedicel.

*a*². Posterior tibiæ slightly sinuate inwardly, moderately dilated.

*b*². Third and fifth intervals raised, rounded.

Elytra with a plain brown tessellation (genit., pl. xlvi., fig. 18) .. .. *tessellata.*

Elytra with the tessellation much less distinct (genit., pl. xlvi., fig. 20) .. .. *lucidula.*

*b*¹. Third and fifth intervals tectiform.

Elytra plainly tessellate .. .. *annectens.*

*a*¹. Posterior tibiæ very broadly dilated (genit., pl. xlvi., fig. 22) .. .. *fartula.*

B¹. Club of male longer than the pedicel.

Elytra with the intervals plane.

*b*². Clypeus with the median part of the anterior margin plainly angular (genit. of *proteana*, pl. xlvi., fig. 19) .. { *proteana.* / *rhodesiana.*

b^1. Clypeus with the median part of the anterior margin not angular (gen., pl. xlvi., fig. 21) .. .. *australis.*

A^1. Elytra with the intervals costate, tectiform.

Antennæ of male longer than the head, the latter concolorous.. *concordans.*

Antennæ of male much longer than the head, the latter black.. *distinguenda.*

Autoserica tessellata, n. spec.

Plate XLVI., fig. 18.

Light chestnut, slightly metallic, either lightly infuscate on the head and the central part of the prothorax and with equi-distant fuscous patches forming a tessellation on the plainly convex costæ of the elytra, or so much suffused with a fuscous tinge that the tessellation is quite obliterated; surface with a very short, squamiform hair on each puncture; antennæ rufescent; club slightly flavescent; clypeus slightly narrowed laterally towards the apex, which is nearly straight, and the margins moderately reflexed, separated from the head by an arcuate impressed line, deeply and somewhat roughly punctate, head with very shallow punctures; club of antennæ not much longer in the male than in the female; prothorax also with shallow punctures; scutellum elongate, sharply triangular; elytra gradually ampliated laterally towards the posterior part, convex, but more so in the female than in the male, plainly costate with the costæ rounded, margin of epipleural fold with a fringe of short hairs; pygidium and abdomen with minute scales, metasternum with a long, median, longitudinal impressed line; anterior tibiæ bi-dentate; in the male the two valves are almost symmetrical and enclose an ovate open space.

Length $7\frac{1}{2}$–9 mm.; width $4\frac{1}{4}$–$5\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Salisbury, Sebakwe), Transvaal (Lydenburg).

Closely allied to *L. ukamina*, Brsk., but the naked spots on the elytra occur on the alternate costæ. Herr Brenske informs me that the two species are not identical.

Autoserica (Lepiserica) lucidula, Péring.,

Plate XLVI., fig. 20.

Trans. S. Afr. Philos. Soc., vol. vi., 1892, p. 35.

Shape and colouring of *L. mashona*, the description of which suits entirely the present species; the tessellate denuded patches on the elytra are, however, not so dark in the light-coloured specimens,

and therefore not so conspicuous; the genital armature of the male is very different, the left lobe is very much longer than the right, strongly sinuate outwardly, broadly laminate, strongly arcuate inwardly near the apex the vertical edge of which is incised, the right lobe is short, narrow, and directed inwards.

Length 6–9 mm.; width 4–5½ mm.

Hab. Ovampoland (Omrramba); Southern Rhodesia (Sebakwe, Salisbury).

AUTOSERICA ANNECTENS, n. spec.

Fuscous or dark chestnut-brown, with a faint greenish-bronze tinge on the frontal part of the head, and on the discoidal part of the prothorax, it has no sericeous sheen, the under side is lighter chestnut-brown than the upper, and so are the legs, the antennal club is flavous in the male, and not longer than the pedicel, the sixth joint is almost rudimentary, but still visible under a high power, in the female the club is reddish-brown, and the joints of the pedicel normal; this species looks at first sight like a very small example of *A. lucidula*, but the frontal part is broadly and very deeply punctate all over, and has a median slightly raised longitudinal line; the prothorax is similarly shaped, and there is a minute hair in each puncture; the scutellum and elytra are also alike, and each puncture bears a minute greyish hair, the dark tessellation is also not very plain in some examples and more so in others, but the first interval is broader than the others, plainly convex and tectiform, and so are the other dorsal ones.

This species resembles so much the female of *A. concordans* that, in spite of the subdued tessellation of the elytra and the presence of the minute scale-like hairs on the upper side, I took it to be the same, owing to the shape of the raised intervals of the elytra, until I got the male. The tessellation is completely obliterated in some examples.

Length 6¼–6½ mm.; width 4–4¼ mm.

Hab. Southern Rhodesia (Sebakwe, Salisbury).

AUTOSERICA (LEPISERICA) FARTULA, n. spec.

Fuscous with a metallic tinge, and occasionally with the elytra chestnut-brown and the costules darker, not tessellate; the shape and sculpture of the head is the same as in the two preceding species, but the clypeus is very deeply punctured; the prothorax is covered with moderately closely set punctures bearing each a minute flavescent hair; the punctures on the scutellum are deep

and the hairs longer, but appressed; the wide, convex elytra have along the base, on each side of the scutellum, squamose appressed hairs longer and denser than those springing from the somewhat scattered, shallow punctures of the surface, and in addition five partly gemminate rows on each side of remote sub-erect, white, bristle-like hairs, but often partly rubbed off; under side with an opaline hue; coxæ and metasternum occasionally with appressed hairs; basal inner part of hind femora strongly laminate; valves of genital armature slender, vertical, bi-sinuate, and symmetrical.

Length 9½–11½ mm.; width 6½–7½ mm.

Hab. Southern Rhodesia (Salisbury, Sebakwe); Mozambique (Rikatla).

In my example from Rikatla, the punctures on the clypeus are much less rugose; and the seriate white hairs on the elytra are not partly rubbed off, this is probably due to the example having been preserved in spirits of wine.

Autoserica (Lepiserica) proteana, n. spec., Plate XLVI., fig. 19.

Reddish-brown, faintly opaline on the upper side, more so on the under side, and with the head and prothorax slightly darker, or gradually turning to dark chestnut on the upper part; antennæ reddish in the female, with the club longer than the pedicel in the male, and flavescent; clypeus bi-sinuate in front, owing to the median part being slightly, yet plainly aculeate, the anterior margin is strongly reflexed, the surface roughly punctate, and the head faintly punctured; the body is somewhat elongated, nearly parallel; the punctures on the prothorax very fine, each with a most minute hair; elytra plainly costulate, each puncture bearing as minute a hair as on the prothorax, and each alternate costule having a series of small, equi-distant, sub-appressed whitish bristles; hind femora only slightly sinuate in the inferior margin and as broad at the base as it is at the apex; the genital armature of the male is very complicated.

Length 8–9½ mm.; width 4½–5½ mm.

Hab. Natal (Durban), Southern Rhodesia (Salisbury).

Autoserica (Lepiserica) australis, n. spec., Plate XLVI., fig. 21.

This species is hardly distinguishable from *L. proteana* in shape, sculpture, and colouring, but the anterior margin of the clypeus is

not aculeate; the genital armature of the male is much simpler than in *L. proteana.*

Length 7½–8½ mm.; width 4–5 mm.

Hab. Cape Colony (Bathurst); Transvaal (Lydenburg).

AUTOSERICA RHODESIANA, n. spec.

Brownish-red with a fleshy tinge, a sericeous appearance, and a sub-opaline sheen in fresh specimens; clypeus slightly attenuate laterally, slightly emarginate on the anterior part, but not aculeate in the centre, very roughly punctured, clypeal suture arcuate and plain, frontal part vaguely punctulate, club of antennæ of male long, but shorter than the head, and flavous; prothorax very faintly punctate, slightly attenuate laterally in the anterior part; scutellum closely punctate; elytra elongate but slightly ampliate laterally before the median part, costulate with the costules somewhat raised, or moderately plane, the punctures very shallow and somewhat indistinct, but each bearing a most minute greyish hair, the series of longer and very remote hairs on the alternate costules are usually obliterated on the disk, but can still be traced on the sides; pygidium, abdomen, coxæ, and pectus with the usual sculpture and vestiture.

Closely allied in general appearance to flesh-coloured examples of *Neoserica carneola* and *N. natalensis*, and distinguished merely by the three-jointed club of the male. The shape of the genitalia of the male differs much from that of the other South African species of *Autoserica* and *Neoserica*.

Length 8–9¾ mm.; width 4¾–5½ mm.

Hab. Southern Rhodesia (Buluwayo, Enkeldoorn, Salisbury); Transvaal (Rustenburg).

AUTOSERICA CONCORDANS, n. spec.

Smaller than *A. rhodesiana*, and more parallel, the head, prothorax, and under side are fleshy-red, the elytra flavescent, it has a faint, silky, not iridescent sheen; the clypeus, the fore margin of which is slightly sinuate and plainly angular in the centre, is foveolato-punctate, and so is the anterior part of the head, the antennal club of the male is very long, but a little shorter than the head, and the 5–7 joints of the pedicel are almost fused together, the suture being hardly distinct even under a high magnifying power, but they are of normal shape in the female, the fifth and seventh are aculeate inwardly, the club is also normally elongato-ovate, but is longer than usual in

this sex; the prothorax is very finely and closely punctulate, more parallel and more sinuate laterally in the posterior part in the male than in the female; scutellum closely punctate; elytra elongated, sub-parallel in the male, less so in the female, deeply striate, the striæ filled with conspicuous punctures broader in the male than in the female, but the punctures are hairless, the intervals being plainly tectiform in both sexes with the exception of the second which is more plane than the others, and also wider; pygidium convex in the male, hardly so in the female, deeply punctate, the punctures not closely set; transverse seriate row of bristles on the abdominal segments strong; hind tibiæ not quite so broadly dilated inwardly as in the other species of the genus, spurs reaching only to half the length of the basal tarsal joint in the male, and proportionately longer in the female; the lower tooth of the anterior claws of the male is subquadrato-lobate in the male, and therefore wider than in the preceding species of *Autoserica*, but this character can only be looked upon as specific.

Length 6½–7 mm.; width 3½–4 mm.

Hab. Southern Rhodesia (Enkeldoorn, Salisbury).

AUTOSERICA DISTINGUENDA, n. spec.

Very closely allied to *A. concordans*, the colour is redder all over, and the frontal part black, the iridescent sheen is also more pronounced; in the male the yellow antennal club is very much longer than the head and the joints of the pedicel quite free, thus distinguishing it easily from *A. distinguenda;* the female is of a slightly heavier build than *A. distinguenda*, which it, however, closely resembles, and the punctures on the intervals impinge more on the sides of the costæ than they do in the other species.

Length 7–7½ mm.; width 3½–4¾ mm.

Hab. Southern Rhodesia (Salisbury).

(*Species which I have not seen or identified.*)

Herr Brenske has described the six following species :—

A². Antennæ nine-jointed .. .. .. *barbata; lydenburgiana; zoutpaniana.*
A¹. Antennæ ten-jointed .. .. .. *benigna; delagoana; fasta.*

LEPISERICA BARBATA, Brensk.,

Berl. Ent. Zeit., 1901, p. 232.

"Opaque, opaline, very dark-brown, legs, antennæ, mouth parts reddish-brown, prothorax also reddish-brown, shining; antennæ

9-jointed; clypeus scarcely marginate, very slightly sinuate in front, the corners rounded, and having a fine transverse line close behind the anterior margin, very densely and coarsely punctulate, the frontal suture very indistinct, scarcely noticeable; prothorax not produced in front, the sides almost straight, the hind angles rounded, marginal setæ very weak, not densely punctate; scutellum large; elytra with distinctly raised costules, the costules densely, coarsely, almost rugosely punctate, interspaces narrow, without punctures, darkened by some scattered, very fine bristle-bearing punctures, the marginal setæ fine and short; pygidium strongly convex, almost opaquely punctate, acuminate; the bristle-bearing punctures of the abdominal segments very weak; posterior coxæ very sparingly and finely bristly at the sides only, hind femora not compressed, flat, narrow, acuminate towards the apex and distinctly sinuate before the tip, and with a weakly projecting angle, the hind margin with tolerably crowded punctures, the setigerous punctures but little prominent; hind tibiæ slender, coarsely punctate, and with two groups of bristles externally, the terminal spur as long as the first tarsal joint, these tarsal joints not very strong, those of the anterior tarsi short; middle coxæ approximated, median part of sternum brown, very briefly pubescent; mentum with a dense, long pubescence.

Length 8·5 mm.; width 5 mm.

Hab. Port Natal."

LEPISERICA LYDENBURGIANA, Brensk.,

Berl. Ent. Zeit., 1902, p. 432.

"Elongato-oval, not thick, opaque, uniformly brown, with a short, hairless clypeus; antennæ 9-jointed; facies of *Autoserica*, clypeus broad, but little narrowed and very short, densely and deeply punctate, base of ocular keels strong, frons flat in the middle, with a distinct, finely raised longitudinal line; prothorax somewhat less broad, straight at the sides, hind angles lightly rounded off, anterior margin slightly produced in the middle, finely and densely punctate, without hairs or scales; elytra finely but distinctly striate, the deepened striæ, in which the punctures are scattered and not seriate, are as broad as the raised interspaces and have solitary bristly hairs, base without hairs, epipleural striæ broad only at the base, equally narrow behind; scutellum small, the margins hairless; pygidium convex, somewhat acuminated; abdomen flat, punctate, with distinct rows of setæ; hind femora little broadened, somewhat narrower before the apex which is distinctly angular, sparingly

punctate, with scattered bristles; hind tibiæ evenly widened at the apex and with two separate groups of setæ on the outer side, terminal spur almost as long as the first, very long tarsal joint, tarsi of intermediate legs very slender; claws more deeply cleft at the apex; third and fourth joint of the antennæ cylindrical, narrow, fifth and sixth short, the latter very minute; the three-jointed club is longer than the pedicel, narrow, the last foliated joint has a distinct longitudinal groove; mentum plainly deplanate in front, somewhat like in *L. confinis*.

Length 8 mm.; width 5 mm.

Hab. Transvaal, Lydenburg."

LEPISERICA ZOUTPANIANA, Brensk.,

Berl. Ent. Zeit., 1901, p. 225.

"Oval, opaque, brown above, somewhat spotted and opaline, the antennæ 9-jointed; very like *L. ukamina*, Brsk., but the scale-like hairs are finer, the hind femora and tibiæ less strong; clypeus short, broad, broadly rounded at the anterior angles, lightly emarginate in front, with a broad ocular keel; metallic, shiny, densely, finely aciculate, with indistinct setiferous punctures at the anterior margin, the frontal suture is less angularly curved; frons and prothorax as in *L. lucidula*, Péring., the densely tomentose elytra are distinctly punctato-striate, the interspaces somewhat narrower than in *L. ukamina*, the tessellated spots are faint, the punctures themselves only recognisable by the fine hairs, the larger setose-like hairs are very little distinct; the broader epipleural fold is somewhat narrower in the middle, less sharply punctate at the apex, the outer angles rounded; the hind femora are a little narrower, very weakly curved at the hind margin; hind tibiæ smooth.

I cannot separate a female example from Lydenburg in the Transvaal belonging to the Berlin Museum, in spite of the fact that it has 10-jointed antennæ.

Length 9 mm.; width 5 mm.

Hab. Transvaal, Zoutpansberg."

I have already stated my belief that this species is identical with *L. lucidula*, Péring.

LEPISERICA BENIGNA, Brsk.,

Berl. Ent. Zeit., 1901, p. 233.

"Just as dark brown as *L. barbata*, and very like this species also in the elongate form, but more reddish-brown on the under side,

opaque, opaline; clypeus broad, but short, distinctly marginate, less densely and coarsely punctate and having a row of setæ behind the anterior margin, the suture very fine and covered with tomentum, prothorax slightly produced in front, the sides almost straight, lightly sinuous behind, the corners not rounded; scutellum smooth in the middle; elytra irregularly and less densely punctate in the striæ, the interspaces lightly raised, with tiny bristles in the punctures, and more distinct white bristles in rows; pygidium convex, acuminate; the setigerous punctures of the abdominal segments are distinct; the posterior femora are flat, broadened, somewhat sinuate before the apex, not narrowed at the apex, opaquely punctate, with distinct setigerous punctures; the posterior tibiæ are broadened, and have two groups of bristles externally, and an indistinct process above it; terminal spurs somewhat shorter than the first tarsal joint which is robust; posterior coxæ densely bristly at the sides; mentum broadly deplanate; sides of the sterna finely hairy; antennæ 10-jointed, club 3-jointed (♀). The male is in my collection; it is less darkly coloured, the angles of the posterior femora are somewhat more distinctly projecting; the tri-jointed club is distinctly longer than the stalk. Very dark examples, black on the upper side with greenish tinge and vivid opaline sheen are labelled *purpurata* in the Dohrn Collection.

Length 8 mm.; width 5 mm.

Hab. Port Natal."

LEPISERICA DELAGOANA, Brensk.,

Berl. Ent. Zeit., 1901, p. 228.

"Robust and thick, very opaque, dark with green sheen above, brown below, only the tibiæ and tarsi shining; antennæ 10-jointed, club 3-jointed. Clypeus broad, lightly marginate, only a little attenuated, very weakly sinuate in front, densely and strongly punctate in the anterior half, very finely punctate from the middle of the suture, and there also tomentose, with small, solitary, weak, setigerous punctures posterior to the suture; elytra lightly produced in front in the middle, the lateral margin rounded in front, nearly straight posteriorly, and very lightly sinuous, marginal setæ weak; scutellum densely punctate; striæ of elytra with a row of fine punctures, the interspaces broad, quite flat, very sparsely punctate, with a few darker hairs and darker lines which, however, are not broken up into spots, and here the white, stronger, seriate bristles are distinctly seen, at the base the hairs are densely crowded, but very weak and indistinct; the epipleural stria is equally broad

behind the shoulder; the under side is hairless; the pygidium acuminate; the rows of bristle-bearing punctures of the abdominal segments are only to be found on the sides; the posterior femora are very strongly broadened, opaquely punctured, somewhat shiny, and with bristle-bearing punctures at the apex only; posterior tibiæ strongly widened, with four groups of bristles, punctate at the base, the terminal spur long, the tarsi strong; metasternum without punctures or hairs; mesosternum wide, the setæ at the apex very weak; mentum deeply deplanate; club 3-jointed, strong and longer than the pedicel in the male, short and small in the female.

Length 9·10 mm.; width 5·5 mm.

Hab. Delagoa Bay."

LEPISERICA FASTA, Brensk.,

Berl. Ent. Zeit., 1901, p. 225.

"Reddish-brown, strongly opaline, resembling *L. benigna*, thicker; head and prothorax very similarly formed, but the minute hairs in the punctures there and on the elytra are somewhat more distinct, and the white setæ somewhat weaker; the species is more easily distinguished by the scutellum being evenly and finely punctured, whereas in *L. benigna* the punctures are coarser, and the middle is impunctate; the elytra are evenly punctured, and have fine punctate striæ, the punctures are less coarse than in *L. benigna* and more evenly distributed, the interspaces are indicated by narrower, somewhat dark stripes at the base, the hairs are crowded; the hind femora are weakly widened, evenly broad, with dense rows of bristles; the deplanation of the mentum is distinct; antennæ 10-jointed, the last seven joints of the stalk are somewhat drawn out inwardly, club shortly ovate (♀).

Length 8 mm.; width 4·7 mm.

Hab. Delagoa Bay (Monteiro)."

SERICA CONFINIS, Burm.,

Handb. d. Entom., iv., 2, p. 174.

Form elongato-ovate, or almost cylindrical, the elytra as a rule more distinctly and deeply striated; antennæ 9-, club 3-jointed.

"Oblongo-ovate, fuscous purplish, opaque, lighter underneath; elytra striate, intervals blackish.

Length 4 lin. ♂.

From Kaffirland, collected by Ecklon. Elongato-ovate, shaped like the male of *Serica variabilis*, dark purple, red-brown above,

paler underneath, opaque with very slight silky sheen, clypeus punctate, shiny, vertex, prothorax, and elytra with scattered punctures, in each puncture a little bristle; elytra striate, their interspaces blackened along the summit; legs with brighter silky sheen. My examples have no antennæ left, and I can only assume that they are 9-jointed."

GEN. NEDYMOSERICA, Brensk.,

Berl. Ent. Zeit., vol. xlvi., 1902, p. 461.

"The principal, but not remarkable characters of this genus are as follows: Mentum not deplanated in front, being evenly flattened, with long hairs; prothorax distinctly transverse; elytra not striped; hind coxæ one and a half times as long across the outer margin as the episterna of the metasternum; sternum broad between the middle coxæ; hind femora thick, less broad, narrowed towards the apex; hind tibiæ narrow, truncated at right angles at the apex; tarsi slender, finely cleft, the anterior ones somewhat shortened.

The genus approaches *Autoserica*, from which it differs by the flat mentum and the less widened femora; the body is thick but narrow, and the antennal club of the male is presumably 3-jointed."

NEDYMOSERICA FLAVIDA, Brensk.,

Loc. cit., p. 462.

"*Hab.* Delagoa Bay.

Length 6·5 mm.; width 3·6 mm. ♀.

Opaque, pale golden-yellow, brightly opaline; antennæ 9-jointed, slender, club small; clypeus broad, little narrowed, lightly sinuous in front, with a transverse depressed line and setigerous punctures behind the anterior margin, densely, almost finely wrinkly punctate; prothorax produced in front in the middle, not widened laterally behind, lateral margins turning somewhat inwards from the middle, hind angles broadly rounded, marginal setæ plain, hind margin finely rounded near the sides, surface finely punctate; scutellum narrow, acute, finely rounded off, finely punctate; elytra finely serially punctate in the deepened striæ and irregularly punctate alongside of them, the narrow intervals weakly punctate, the setigerous punctures are very distinct, the sides have densely set, upright marginal setæ; pygidium somewhat narrow, convex, almost keel-like; abdomen densely and distinctly serially bristly on the segments, the bristles denser on the sides; the whole under side is most strikingly hairy and bristly; hind femora widened at the base, rapidly narrowed

from the middle, enclosed with dense, fine setæ on both margins; hind tibiæ paddle-shape, both groups of bristles on outer margin remote from each other; the apical spur is as long as the first tarsal joint, joints robust, claws somewhat elongated, the anterior ones are somewhat abbreviated, but not more strikingly so than in the other *Serica* species; anterior tibiæ very strongly bi-dentate."

Gen. NEOSERICA, Brensk.,

Berl. Ent. Zeit., 1901, pt. iv. (1902), p. 437.

The only difference beween *Neoserica* and *Autoserica* is the number of joints in the club of the male, which is four instead of three, and longer than the pedicel; the punctures on the upper side are not squamigerous.

Key to the Species.

A². Upper side with a silky sheen.

B². Elytra faintly punctulate.

a². Club of the male longer than the head.

Club flavous.

Prothorax hardly sinuate laterally.. .. .. *carneola.*

Prothorax moderately sinuate laterally.. .. .. .. *transvaalensis.*

a¹. Club of the male shorter than the head.

Club fuscous .. .. *natalensis.*

A¹. Upper side without a silky sheen.

B¹. Elytra plainly punctate .. .. *obesa.*

Neoserica carneola, Péring.,

Plate XLVI., fig. 26.

Trans. S. Afric. Philos. Soc., vol. vi., 1892, p. 34.

N. barbara, Brensk., Berl. Ent. Zeit., 1902, p. 444.

Light reddish-chestnut, with a fleshy tinge and a slight silky sheen on the upper side, club of the antennæ reddish-yellow, that of the male flavous—and nearly, but not quite, as long as the head and clypeus taken together; the clypeus is slightly narrowed laterally towards the anterior margin, which is very slightly bi-sinuate, owing to the centre being slightly aculeate, and the suture bears a row of very short, rigid setæ, it is covered with deep, con-

tiguous, rough punctures, whereas on the frontal part the punctures are very shallow and scattered; prothorax with an anterior and a lateral fringe of flavescent hairs and with also a few scattered similar ones near the outer margins, it is somewhat deeply but not closely punctate, and hardly sinuate laterally in the posterior part; scutellum punctate; elytra elongated, sub-parallel, moderately convex, striato-punctate with the intervals not raised, and punctate, the punctures scattered; in well-preserved examples the silky sheen hides these punctures; under side punctate, abdominal segments with the usual transverse row of setigerous punctures; upper spur of hind tibiæ as long as the basal tarsal joint.

Herr Brenske has very kindly communicated me his type of *N. barbara.* I have not examined its genital armature, but my co-type, which is absolutely similar, has the same genital armature as *N. carneola.*

Length 8–9½ mm.; width 5–5¾ mm.

Hab. Transvaal (Rustenburg, Lydenburg); Cape Colony (Barkly West), Ovampoland (Omrramba).

Neoserica transvaalensis, n. spec.,

Plate XLVI., fig. 23.

This species is so very much like *N. carneola* that but for the different shape of the genital armature it might easily be mistaken for it; the frontal part is, however, more deeply and more closely punctured, and the prothorax is more deeply sinuated laterally above the basal angle. The female is unknown to me.

Length 7½–8 mm.; width 4½–4¾ mm.

Hab. Transvaal (Potchefstroom, Lydenburg).

Neoserica natalensis, Brensk.,

Plate XLVI., fig. 25.

Berl. Ent. Zeit., 1902, p. 444.

Slightly less elongated than the two preceding species and slightly wider in proportion to its length, this species is also closely allied to *N. carneola,* its colour is, however, still more flesh-like, and the sheen more pronounced; the anterior margin of the clypeus is very plainly aculeate in the centre, but all my examples lack the row of short bristles on the clypeal suture; the antennal club of the male is more or less fuscous, and about shorter than the head by one-third.

Length 7–8 mm.; width 4½–5 mm.

Hab. Cape Colony (George); Natal (Durban).

NEOSERICA OBESA, Péring.,

Trans. S. Afr. Philos. Soc., vol. vi., 1892, p. 35.

Female: Chestnut-red, with only a slight fleshy tinge and a very faint metallic sheen; clypeus very roughly, although not deeply punctured, anterior margin very slightly sinuate but not angular in the centre, the clypeal arcuate suture is almost obliterated, and the punctures on the frontal part are shallow but somewhat closely set; prothorax of the usual shape and sculpture but with the sides fringed with somewhat long hairs; scutellum very closely punctulate; elytra elongated, but somewhat ampliated laterally in the posterior part, and plainly convex there, sub-costulate in the anterior part only, punctato-striate, the interstices are plainly and somewhat closely punctured, and there are on each side six rows of somewhat remote, very small whitish hairs; coxæ and metasternum deeply punctured, and with a plain metallic sheen, the hind margin of the former is straight; the club of the antennæ is flavescent.

This species is much more deeply punctured than the same sex of both *N. carneola* and *N. natalensis*, and the prothorax is more strongly attenuated laterally in the anterior part.

Length 10 mm.; width 6 mm.

Hab. Ovampoland.

ETISERICA, n. gen.

Mentum of *Auto-* and *Neo-serica;* clypeus more obliquely narrowed towards the anterior, truncate, and not much reflexed part; antennæ of male 10-jointed, the seventh antennal joint laminate, but very short; elytra elongated, deeply striate; anterior tibiæ plainly tridentate; claws normally cleft, but the inner one is very slightly wider than the outer; anterior tarsi somewhat short, the intermediate and posterior long, the basal joint of hind tarsi is as long as the second, upper hind spur as long as the basal joint; lower margin of hind coxæ straight; hind femora and tibiæ moderately broadened inwardly.

This genus differs from *Stenoserica* by the more acuminate clypeus which is not unlike that of a *Trochalid* but is not aculeate in the centre of the anterior margin, the much more oblique genæ, and the absence of hairs along the outer margin of prothorax and elytra, and also on the pectus.

ETISERICA SIMPLEX, n. spec.

Testaceous, with the elytra testaceous-yellow, and without any sheen, glabrous; antennæ flavous; clypeus truncate in front, obliquely attenuated laterally, deeply punctate, frontal part punctulate in the anterior part only, impunctate behind; prothorax much broader across the base than across the apex, very slightly sinuate laterally, closely punctate, and, in the only example which I have seen, without any lateral setæ; scutellum long, punctulate; elytra elongate, not much convex, somewhat deeply striate, the striæ punctulate, and the rounded intervals deeply and closely punctate; pygidium moderately convex, punctulate; abdominal segments also punctulate; pectus glabrous, deeply punctate; in the male, the only sex known to me, the antennæ are 10-jointed, the seventh joint is quite laminate but much shorter than the other three of which the club consists; the anterior tibiæ are plainly tri-dentate outwardly.

Length 7 mm.; width $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Sebakwe).

GEN. STENOSERICA, Brensk.,

Berl. Ent. Zeit., 1901, p. 218.

Buccal organs of the usual type; clypeus plainly sub-acuminate in the centre of the anterior margin; clypeal suture plain; antennæ 9-jointed in both sexes, antennal club of male ovate, much shorter than the pedicel; prothorax short, not sinuate, and sub-angular behind; elytra elongated and somewhat convex; posterior margin of hind coxæ nearly straight and angular and not covering the fourth abdominal segment; anterior tibiæ bi- or tri-dentate outwardly; claws of all the tarsi normally cleft and strongly divergent in both sexes.

The main character differentiating this genus from *Stenoserica* is the bi-dentate instead of tri-dentate anterior tibia; the coxæ do not also cover the fourth abdominal segment.

Key to the Species.

A.² Anterior tibiæ bi-dentate outwardly.
Pale light testaceous; prothorax almost impunctate .. .. .. *delagoana.*
Rufescent; prothorax plainly punctulate .. .. *deceptor.*
A¹. Anterior tibiæ tri-dentate .. .. *zambesicola.*

STENOSERICA DELAGOANA, n. spec.

Very pale testaceous and slightly iridescent; head of the normal shape, anterior margin of clypeus plainly sub-aculeate in the centre, antennæ 9-jointed, club 3-jointed, ovate in both sexes, and not much longer in the male than in the female, slightly flavescent in the male, reddish in the female; prothorax not distinctly punctulate; scutellum faintly punctulate; elytra elongate, somewhat convex, finely but not deeply punctato-striate with the intervals nearly plane and faintly punctulate, and having along the suture and each alternate interval a series of very remote but quite conspicuous bristle-like hairs.

Length 7–7½ mm.; width 3½–4 mm.

Hab. Mozambique (Lourenço-Marquez).

STENOSERICA DECEPTOR, Péring.,

Trans. S. Afric. Philos. Soc., vol. vi., 1892, p. 35.

This species differs from *S. delagoana* mostly in the colour, which is either reddish or chestnut-red; the club of the antennæ is longer in the male with the joints elongated, but not quite as long as the pedicel; the sculpture on the clypeus, head, prothorax, and antennæ is much deeper; the costules on the elytra are also much more pronounced, and the intervals much more deeply punctured.

Length 6½–7 mm.; width 3½ mm.

Hab. Southern Rhodesia (Middle Limpopo); Ovampoland (Omrramba).

STENOSERICA ZAMBESICOLA, n. spec.

Chestnut-brown, with the frontal part of the head and the prothorax fuscous, glabrous, elytra opaque but with a slight opaline sheen; club of antennæ flavescent, as long as the pedicel in the male; clypeus as long as the frontal part, slightly emarginate laterally, slightly bi-sinuate in front owing to the anterior margin being plainly acuminate in the centre, deeply and somewhat coarsely punctured, frontal suture fine, very plain, and with the edges slightly raised, frontal part sparsely punctate, the punctures round and moderately deep; prothorax moderately closely punctate and without any lateral hairs, convex and with the posterior angles sharply defined; scutellum punctulate; elytra one-third longer than broad, sinuate laterally in the anterior part, and plainly ampliate in the posterior, punctato-striate with the intervals somewhat raised in the anterior part; under side iridescent, almost glabrous except

for one row of short hairs along the outer margin of the coxæ and a few appressed ones on the sides of the metasternum and on the somewhat broad episterna; hind femora broad, hind tarsi short, also broad, and with only three long, stiff, single bristles underneath.

Length 7 mm.; width 4½ mm.

Hab. Southern Rhodesia (Victoria Falls).

This species very closely resembles examples of *Autoserica annectens*, but it is easily distinguished owing to the tri-dentate tibiæ and other specific characters.

DIAPHOROSERICA, n. gen.

Plate XLVI., fig. 3.

Very closely allied to *Gryphonycha*, the chief distinctive characters being the shape of the fore tarsi and claws of the male; the former are short, the second, third, and fourth joints are triangularly dilated, the fifth is much broader and longer, the claws are conspicuously diverging, each one is deeply cleft, the upper tooth of the left one being very slender, and the lower very broadly lobate, this lobe is conspicuously wider in the outer than in the inner claw; in the female the claws are deeply cleft, the lower tooth is, however, wider than the upper; antennæ 9-jointed in both sexes, the 3-jointed club is nearly as long as the pedicel in the male. The prothorax curves very strongly forwards, and the mentum is not as densely hairy as in *Gryphonycha*. This genus differs from *Neuroserica*, Brensk., in both the anterior claws of the male being toothed and not widened, lobe-like, and in the club not being strongly elongated.

DIAPHOROSERICA MASHONA, n. spec.

Rufescent, with a fleshy tinge and a more or less strong opaline sheen; antennæ testaceous; clypeus with a plain frontal suture, arcuately emarginate in front but with the margin reflexed and slightly aculeate in the centre, the outer angles are distinct, but not prominent, the surface is deeply punctured, the head less so; prothorax slightly narrowed laterally in front, sinuate behind and also along the base, sloping forwards, vaguely punctulate only along the base and sides; scutellum long, aciculate; elytra elongated, plainly striato-punctate with the intervals sub-tectiform, the punctures of the striæ impinge on each side of the sub-tectiform intervals; anterior tibiæ bi-dentate.

Length 6–7 mm.; width 3¼–4 mm.

Hab. Southern Rhodesia (Sebakwe).

HYBOSERICA, n. gen.

Clypeus obliquely attenuated laterally towards the anterior part which is slightly angular in the centre, the outer angles are rounded, and the lateral and apical margins are reflexed, the genæ are short; mentum of *Autoserica;* antennæ 9-jointed, club tri-jointed in both sexes, not much longer in the male than in the female, elongato-ovate, not as long as the pedicel, and with a deep impression on the outer part of the ultimate joint; prothorax short, triangular; elytra strongly convex in the median dorsal part; anterior tibiæ tri-dentate outwardly; claws normally cleft, lower tooth wider than the upper, posterior tibiæ with the inner margin straight and thus gradually ampliated from base to apex; body glabrous on the upper side.

Key to the Species.

Basal joint of hind tarsi slightly longer than the second, hind spur longer than the first joint .. .. *globuliformis.*
Basal joint of hind tarsi much longer than the second, hind spur shorter than the first joint .. .. *caffra.*

Hyboserica globuliformis, Brensk.,

Berl. Ent. Zeit., vol. xlvi., 1902, p. 451.

Brownish-red, with a fleshy tinge, or occasionally sub-fuscous, plainly iridescent, and with only a slight sericeous sheen, antennæ slightly flavescent in the male, rufescent in the female, 9-jointed in both sexes, the club much shorter than the pedicel in the male; clypeus with the anterior angles much rounded, the anterior margin very slightly emarginate and aculeate in the centre, and both lateral and apical margins reflexed, it is covered with round, closely set, equi-distant punctures, the sub-arcuate impressed suture is very plain, and the frontal part punctulate; prothorax one-third longer than the head, slightly narrowed laterally in the anterior part, but not sinuate thence to the rounded, basal one, convex, closely punctulate, and with a lateral fringe of somewhat long, light fulvous hairs; scutellum short, much rounded at the apex; elytra conspicuously convex, slightly costulate, very indistinctly striate and with the intervals as well as the costules closely punctate; pygidium broadly cordate, closely punctate; coxæ very broad, and covering the greatest part of the third abdominal segment; hind femora not very much broadened, gradually enlarged from base to apex, *i.e.*, the inner margin is not sinuate near the base and curved towards the apex; anterior tibiæ plainly tri-dentate outwardly; fore tarsi somewhat short, claws normally cleft, the lower tooth slightly more robust

than the upper, and shorter; pro- and meso-sternum densely hairy, intermediate femora also hairy; scutellum somewhat short; first joint of hind tarsi longer than the second, upper apical spur as long as or longer than the basal joint. The shape of the genital armature of the male is of quite a different type from that of all the other South African species.

Length 9–10 mm.; width 5½–6 mm.

Hab. Cape Colony (Cape Town).

HYBOSERICA CAFFRA, Fähr.,

Triodonta caffra, Insect. Caffr., ii., p. 139.

Female: A little shorter and more ampliated behind than *C. globuliformis*, and with a still more opalescent sheen, the clypeus is quite semicircular owing to the genæ not projecting; prothorax straight laterally from apex to base, much broader there than at the apex, deeply punctate but with the intervals wider than in *C. globuliformis*, and with only a few remote setæ laterally; scutellum elongate, but broad at the base; elytra broadly ampliated laterally at a short distance from the base to near the apical part where it is one-fourth wider than at the base and rounded laterally above, obsoletely striate and very faintly costulate, deeply punctate; mentum and anterior coxæ bristly; pectus and abdomen glabrous, deeply and closely punctate; inner margin of posterior tibiæ with a lesser number of setæ than in *C. globuliformis;* basal joint of hind tarsi much longer than the second, upper apical spur shorter than the basal joint.

Length 8 mm.; width 5 mm.

Hab. Natal.

Very closely allied to *C. globuliformis*, from which it differs by the non-projecting genæ, the hairless intermediate coxæ, the less convex elytra, the longer basal joint of hind tarsi, and the less numerously bristly inner side of hind femora.

GEN. PHILOSERICA, Brensk.,

Berl. Ent. Zeit., vol. xlvi., 1902, p. 458.

The main distinctive character of this genus is the vestiture which consists of stiff bristle-like upright hairs scattered on the elytra and prothorax; the metasternum does not in the least project between the intermediate coxæ, and the mesosternum is deeply concave; antennæ 9-jointed; club of male shorter than the pedicel; anterior tibiæ tri-dentate.

Philoserica vittata, Blanch.,

Catal. Coll. Mus., 1850, p. 76.

P. pauper, Wall., Entom. Tidsk., 1881, p. 19.

Black, with the head and prothorax sub-opaque, and yet very faintly iridescent; scutellum black; elytra strongly iridescent, pale testaceous, with the suture, the outer margin, and three stripes on each side black; pedicel of antennæ reddish, club black; the colour of the elytra varies much, the black stripes and outer margins disappear occasionally, or the black tinge has invaded the whole surface which is then very iridescent; clypeus slightly bi-sinuate in front, and with the median part sub-aculeate, deeply and closely punctate, the punctures bearing an upright hair, suture arcuate, very plain, genæ projecting, strongly developed, head moderately deeply punctulate in the anterior part only, hairless; prothorax not much convex, faintly punctulate but with each puncture bearing an upright sub-fulvous hair, and with the anterior margin as densely hairy as the lateral ones, the hairs on the disk are, however, often abraded; scutellum punctulate; elytra moderately elongated, deeply punctato-striate with the intervals somewhat convex and punctulate, each alternate stria has a row of stiff, upright bristles, and the suture is also bristly; the hairs on the abdominal segments are long, the mesosternum is more hairy than usual, and the coxæ do not cover the fourth abdominal segment.

The melanic, or concolorous varieties are all from the Transvaal, but I have seen also similar examples from Sebakwe.

Length 6½–7½ mm.; width 4–4½ mm.

Hab. Transvaal (Lydenburg, Rustenburg, Johannesburg, Pretoria); Southern Rhodesia (Sebakwe, Umtali, Enkeldoorn, Salisbury, Buluwayo).

GRYPHONYCHA, n. gen.

Mentum somewhat short, nearly as broad as long, deeply emarginate in front in the usual manner, but having the depressed anterior part of the inner face divided in two by a median, longitudinal ridge; the other features as in *Neoserica*, but the antennæ are 9- instead of 10-jointed, and the long club of the male is nearly but not quite as long as the pedicel; the anterior tibiæ are tri-dentate outwardly, but the basal tooth is only angular and projects very little; the anterior tarsi are somewhat short in both sexes, and in the male the claws are doubled under the apical joint of the anterior tarsi and of nearly the same length, the upper tooth is

slender and sinuate, the lower one flattened, narrow, truncate at the tip; in the female the claws are long, but of the normal shape. The mentum is covered with an extremely long, dense pubescence.

GRYPHONYCHA PUBERULA, Fähr.,

Plate XLVI., fig. 2.

Insect. Caffr., ii., p. 136.

Rufescent, with a fleshy tinge and slightly iridescent; clypeus with a plain frontal suture, anterior margin slightly angular in the centre, the whole surface is roughly punctured, and the frontal part of the head punctulate; antennæ 9-jointed, club tri-jointed, that of the male shorter than the pedicel; prothorax twice as broad as long, and plainly sinuate laterally in the posterior part, the angles of which are not rounded, very faintly punctulate; scutellum long, punctulate; elytra punctato-striate, with the intervals raised and slightly tectiform, especially in the female, and moderately deeply punctate; anterior tibiæ with two outer teeth, but having also above the second one a sinuation ending in a faint angle.

Length 8–9 mm.; width $4\frac{1}{2}$–5 mm.

Hab. Transvaal (Johannesburg, Rustenburg).

EURONYCHA, n. gen.,

Plate XLVI., figs. 1, 1*a*.

Buccal parts of *Autoserica;* clypeus diagonal laterally, one-half narrower at the apex than at the base, emarginate there, and having one frontal, arcuate shallow suture; eyes only slightly incised by the canthus of the genæ; antennæ 9-jointed, club tri-jointed, one-third shorter than the pedicel in the male; prothorax nearly straight laterally, but wider at the base than at the apex; elytra costulate; whole body clothed with a very dense, and very short silky pubescence; anterior tibiæ tri-dentate outwardly; anterior tarsi of male very short, densely hairy outwardly, the four basal joints are compressed, broadly dilated triangularly outwardly, the fifth joint is produced into a very broad lamina somewhat tectiform on the upper side, the claws are set at right angles to each other and are fused with the apical joint, the lower tooth of the inner claw is much broader than the upper one which ends sharply, and the two teeth of the outer claws are considerably reduced; in the female the claws are normally cleft; posterior margin of coxæ straight, angular outwardly and covering the greatest part of the abdominal segments in

the male, but not in the female; basal joint of hind tarsi much longer than the second; the double row of bristles lining the inner part of the hind tibiæ very long and closely set.

Evidently allied to *Triodonta*, but distinguished by the extraordinary shape of the anterior tarsi of the male.

The four South African species included in this genus are so closely allied that their identification is very difficult.

Key to the Species.

A³. The longer spur of the hind tibiæ half the length of the basal tarsal joint.

Whole body light testaceous .. .. *sericans.*

Head and abdominal segments fuscous .. .. *rhodesiana.*

A². Spur of the hind tibiæ one-third of the length of the basal tarsal joint.

Body somewhat elongato-ovate .. .. *modesta.*

A¹. Spurs of hind tibiæ very short, especially in the male.

Wholly pale testaceous or fusco-testaceous .. .. *sebakuana.*

EURONYCHA SERICANS, Fähr.,

Insect. Caffr., ii., p. 140.

Very pale testaceous, but the clypeus testaceous, the whole body is covered with a whitish silky appressed pubescence; clypeus with a faint suture at the junction with the head, diagonally narrowed laterally from the base to the anterior part where it is only half the width of the base, arcuately emarginate in front with the outer angles moderately sharp, eyes large, canthus not deep; prothorax moderately convex, deeply punctured, the punctures equi-distant and bearing each a silky appressed hair; scutellum sharply ogival, deeply punctate; elytra very little ampliated laterally, slightly convex in the posterior part and rounded at apex, plainly striate although the striæ are not deep, intervals plane, closely punctured; anterior tarsi of the male short, joints triangular dilated outwardly, and increasing in width from the basal to the ante-penultimate one and wider than long, last one as long as the three preceding taken together, claws moderately divaricating, laminato-lobate underneath for half the length, and produced thence into a fine hook; intermediate and posterior ones deeply cleft, the upper tooth longer and more slender than the lower; anterior tibiæ tri-dentate; abdomen very compressed laterally; pygidium triangular, slightly convex; the

longer spur of hind tibiæ half the length of the basal tarsal joint in both sexes.

Length 5–7 mm.; width 3–3½ mm.

Hab. Ovampoland (Omrramba), Damaraland.

EURONYCHA RHODESIANA, n. spec.

Slightly smaller than *T. sericans*, the shape is the same, but the appressed pubescence is still more silky, the head and abdomen are infuscate, and the shape of the claws is the same.

Length 4–4¾ mm.; width 2¼–2½ mm.

Hab. Southern Rhodesia (Sebakwe).

EURONYCHA MODESTA, Péring.,

Trans. S. Afric. Philos. Soc., vol vi., 1892, p. 36.

Female: Testaceous, with the head and prothorax redder, covered like the two preceding species with short appressed hairs, not sufficiently dense, however, to impart to it a sericeous appearance; the whole shape is more elongato-ovate, the head is scrobiculate all over; the punctures on the prothorax and elytra are deep and very plain, the latter deeply striate; the under side is clothed with very dense, short, appressed hairs, and the abdominal segments have a long lateral pubescence; anterior tibiæ strongly tri-dentate outwardly, the two spurs of the hind tibiæ are of equal length and only one-third shorter than the basal tarsal joint.

Length 9 mm.; width 4 mm.

Hab. Ovampoland (Omrramba).

EURONYCHA SEBAKUANA, n. spec.

Fuscous brown or light chestnut-red; shape of the larger examples of *E. sericea*, and with a similar vestiture; it is easily separated, however, owing to the great length of the basal joint of the hind tarsi, which in the male is plainly twice as long as the second, and the very short spurs of the hind tibiæ; in the female this basal joint is only one-third as long as the second, but the spurs are as short as in the male.

Length 6–6½ mm.; width 3½–4 mm.

Hab. Southern Rhodesia (Sebakwe).

IDÆSERICA, n. gen.

Buccal organs of the normal shape; head very broad, with the eyes very large, the canthus reaching nearly to the median part; clypeus strongly narrowed laterally, nearly straight in front with

the angles distinct, and having in addition to the frontal arcuate suture a transverse median one; antennæ 10-jointed in the male, third joint of pedicel not longer than the fourth, antennal club four-jointed, the joints equal in length, laminate, curving outwards, nearly one-third longer than the head; prothorax sloping forwards, twice as broad as long, somewhat attenuate laterally in front, base bi-sinuate; scutellum and elytra of the normal shape; pygidium somewhat convex; coxæ slanting laterally; anterior tibiæ tri-dentate, anterior tarsi not elongate, claws normally cleft, but with the lower tooth of the inner one broadly lobate, as in the genus *Camenta*, and that of the outer claw normally curved but broader than the upper; upper hind spur of the hind tibiæ as long as the basal joint of the hind tarsi which is of the same length as the second.

IDÆSERICA GRATULA, n. spec.

Pale testaceous, with the elytra lighter than the rest of the body; club of antennæ flavous; clypeus narrowed laterally, very slightly sinuate there at about one-third of the length, anterior margin nearly straight, reflexed, but not distinctly aculeate in the centre, the two sutures are shallow, and the whole clypeus is deeply punctate, the punctures on the head are finer; the four-jointed antennal club of the male—the female is not known—is curved and nearly one-third longer than the whole head; prothorax glabrous, but having a few setæ only along the outer margin, covered with fine, round punctures separated from each other by a smooth interval of the same diameter; scutellum long, sharp at apex, deeply punctate; elytra slightly broader laterally than the prothorax, striate and with the intervals convex, sub-tectiform in the anterior part, and deeply, somewhat coarsely punctured; pygidium moderately convex, punctulate, abdominal segments with the normal, briefly setulose transverse row of punctures, coxæ and metasternum deeply and regularly punctured.

Length $6\frac{3}{4}$–7 mm.; width 4 mm.

Hab. Southern Rhodesia (Salisbury).

GEN. CAMENTOSERICA, Brensk.,

Plate XLVI., fig. 4.

Berl. Ent. Zeit., 1901, p. 220.

Mentum of *Serica*, but somewhat elongated, maxillæ of the normal shape, last joint of maxillary palps fusiform, truncate at the tip; clypeus separated from the frontal part by a slightly arcuate

suture, and having in the middle a triangular ridge, anterior edge very strongly reflexed, tri-dentate, the anterior margin is so much reflexed that there is a deep depression on each side of the anterior part, genæ strongly developed, slanting; antennæ 10-jointed, joints 3–5 short, of nearly equal length, 6–7 compressed, the latter somewhat aculeate, club tri-jointed, as long as the pedicel in the male; prothorax nearly twice as broad as long, slightly narrowed laterally in anterior part, slightly bi-sinuate in front and behind, moderately sloping forwards; scutellum acuminate at tip; elytra elongated, subcylindrical; pygidium convex; coxæ less broad than in most *Sericinæ;* covering only the basal abdominal segment; anterior tibiæ tridentate, tarsi long, claws normally cleft in both sexes, but with the teeth more developed in the male than in the female; upper hind spur longer than the basal joint which is only half the length of the second in both sexes.

CAMENTOSERICA LIVIDA, Bohem.,
Ofv. Vet. Akad. Förh., 1860, p. 115.

Testaceous, or testaceous-red, glabrous, club of antennæ flavescent; clypeus tri-dentate in front owing to the median part of the anterior, strongly reflexed margin being sharply aculeate, plainly concave on each side of the anterior part, straight laterally in the basal, slightly rounded in the anterior, median keel widely triangular and almost connected with the genæ, deeply punctate in the interval between the keel and the frontal suture, frontal part less deeply punctate; prothorax a little attenuate laterally in front, slightly rounded in the posterior, a little more so in the female than in the male, moderately sloping, deeply punctate, the punctures being separated by a smooth interval about equal to their diameter; scutellum closely punctate; elytra elongated, slightly ampliated behind in the female, not plainly striate except along the suture, but with three or four faintly raised costules on each side, intervals irregularly and somewhat coarsely punctate; pygidium deeply punctate.

Length 7–7½ mm.; width 4½–5 mm.

Hab. Southern Rhodesia (Buluwayo, Middle Limpopo); Transvaal (Lydenburg); Orange River Colony (Bothaville); Damaraland.

GEN. MESOSERICA, Brensk.,
Berl. Ent. Zeit., vol. xlvi., 1902, p. 452.

"Offers very characteristic peculiarities which render its recognition easier. It belongs to the group with bi-dentate anterior tibiæ,

but as it has a very weak, almost obsolete denticle, it may also be mentioned in the group with tri-dentate anterior tibiæ where it will find its place next to *Stenoserica*. The sternum is narrowed between the middle coxæ, without independent process, it borders on the hairy mesosternum, with a small curved line; the surface is hairless, shiny; the antennæ are 10-jointed, the club 3-jointed in both sexes; the clypeus is small, tri-toothed with a transverse keel before the frontal suture; mentum with a brush of dense hairs in the male, deplanate in front and without sharp border in the female; prothorax little traverse, without sinus in front; hind coxæ abbreviated, little longer externally than the episterna, fore segments of abdomen remaining free; hind femora or tibiæ widened, but not flat, all the tarsi slender, the anterior ones not shortened, the basal joint of hind tarsi very short, scarcely half as long as the second, claws deeply cleft, the sharp upper teeth slender. Only one species known."

I have not met as yet with this genus, which seems to be most closely allied to *Camentoserica*, if it differs from it.

MESOSERICA TRANSVAALENSIS, Brensk.,

Loc. cit., p. 453.

"Both sexes: Brown, shining, head and prothorax somewhat more reddish, narrowly ovate, finely punctate, clypeus broad, the ocular keel bends before the eye suddenly with a curve into the lateral margin, the anterior margin is distinctly sinuate with the centre projecting, the angles are distinctly rounded, concave, smooth, the short space as far as the curved, transverse keel is almost smooth, and very densely punctate and finely wrinkled thence to the frontal suture; prothorax little broader than long, the anterior angles not prominent, the middle a little prominent, the sides weakly ampliated in the middle, little rounded posteriorly with blunt, rounded hind angles and weak marginal hairs, the surface densely and finely punctate; the elytra are similarly punctate, the suture and three or four narrow ribs are smoother, the intervals seeming broad, because the odd ribs between them are obsolete; pygidium convex, densely punctate, acuminate; the abdominal segments are finely punctate and strongly setose, the penultimate segment longer in the middle than any of the preceding ones; hind femora ovately convex in the middle, smooth with a few weak setigerous punctures, hind tibiæ a little widened, elongated, densely punctate, and having externally two weak bristle-

groups of which the one is remote from the apex, the other is very near the base, the distance between the two being larger than the distance from the apex, apical spurs very small, both somewhat longer than the strongly abbreviated first tarsal joint; hind coxæ with distinct punctures, the bristles near the outer margin here rudimentary, the sternum, especially in the middle anteriorly convex and with a weak impression on the smooth part; anterior tibiæ narrow in both sexes, the first two teeth remote, the third rudimentary; joints 3–7 of antennæ moniliform, small but distinct, club testaceous yellow, fairly strong, somewhat curved and somewhat shorter than the pedicel; the brush-like clothing of the mentum consists of pale-yellow laminæ between which some hairs are projecting. This not very striking but very peculiar species reminds one of the smaller *Camenta* species, which differ, however, by their short hind coxæ."

ALLOKOTARSA, n. gen.,

Plate XLVI., fig. 4; figs. 15, 15*a*.

Buccal organs of *Serica;* clypeus suddenly narrowed laterally, with the anterior margin tri-dentate, only half as wide as the head in the frontal part, and having a median transverse keel running parallel to the arcuate, very shallow frontal suture, genæ long; antennæ 10-jointed, third shorter than fourth and fifth, these three joints seemingly partially fused together, sixth and seventh very short, compressed, club 3-jointed, very little shorter than the whole pedicel in the male; prothorax short, sparingly setulose laterally; scutellum acuminate; elytra nearly cylindrical, pygidium convex, triangular; abdomen plainly compressed somewhat in the manner of some *Heterochelus* of the Sub-family *Hopliinæ;* hind margin of coxæ arcuate, covering the greatest part of the third segment; anterior tibiæ tri-dentate outwardly, the basal tooth, however, is very small, the anterior tarsi are short, the intermediate and posterior long, in the male they are abnormally developed into sub-triangular lobes decreasing in width from the basal to the apical joints, and with the three basal wider or as wide as the tibia, the claws are almost filiform, cleft, however, at the apex, the outer one is twice as long as the inner; the intermediate and posterior tarsi and claws are normally shaped as in the female; the spurs of the hind tibiæ are slightly longer than the basal joint which is one-third shorter than the second; in the male the inner spur of the anterior tibiæ has disappeared, but it is strongly developed in the female.

Key to the Species.

Anterior part of clypeus declivous; prothorax regularly ampliated laterally in the centre .. .. *rotundicollis.*

Anterior part of clypeus strongly declivous; prothorax plainly attenuated laterally in the anterior part, not in the posterior .. .. *clypeata.*

ALLOKOTARSA ROTUNDICOLLIS, n. spec.

Pale testaceous, sometimes light brick-red, the head is usually darker than the body and very often black; club of antennæ flavous; clypeus strongly narrowed laterally in the anterior part for about one-third of the length, anterior margin strongly reflexed, tri-dentate, but with the median tooth sharper than the outer angles, the nearly median keel is slightly arcuate and runs parallel to the frontal suture which is somewhat shallow and moderately arcuate, the genæ are long and are formed by a prolongation of the lateral margins, both head and clypeus are moderately deeply punctate; prothorax plainly rounded laterally in the centre and equally narrowed in the anterior and posterior parts, slightly convex, finely and somewhat closely punctate and having a lateral fringe of long setæ; scutellum acuminate, punctulate; elytra sub-parallel, or very slightly ampliated behind in the female, punctulato-striate, with the intervals very little raised, and with deep, irregular punctures, the outer margins have a fringe of moderately short bristles; pygidium and under side punctulate.

Length 5–6 mm.; width 3–3¼ mm.

Hab. Damaraland (Walfish Bay); Southern Rhodesia (Enkeldoorn, Sebakwe); Cape Colony (Carnarvon).

ALLOKOTARSA CLYPEATA, n. spec.

Very closely allied to the preceding species; the colour is the same, but the head is not infuscate; the clypeus is more declivous in the anterior part, the lateral angles of the anterior margin are as sharp as the median aculeate part, which is not the case in *A. rotundicollis*, and the prothorax, which is also more closely punctured, is slightly yet plainly attenuate laterally in the anterior, but not at all in the posterior part the basal angles of which are quite distinct, although not sharp, while in *A. rotundicollis* the basal angles are conspicuously broadly rounded; the shape and sculpture of the elytra are similar in both species.

Length 5¼–6½ mm.; width 3–3¼ mm.

Hab. Damaraland; Ovampoland.

DOLEROTARSA, n. gen.

This genus is allied to *Alogistotarsa*, the buccal organs are the same, and also the general appearance; the clypeus, however, is deeply incised laterally and more constricted there at a short distance from the apex, the anterior margin being quite narrow, reflexed, arcuately emarginate, not angular in the centre and with the angles acute instead of a keel, there is a frontal suture; the anterior tibiæ are uni-dentate, the non-apical tooth being hardly distinct and represented by a slight sinuation only, and there is no inner apical spur, the tarsal joints are long, straight inwardly, rounded outwardly towards the apex, except the apical one, and with one or two slender bristles set past the median part on the outer side only, not near the apex; in the male the outer claw of the anterior tibiæ is normal, and the lower tooth wider and stronger than the upper, the inner is broadly dilated at the base and bent at right angles somewhat in the manner of *Camenta*, and slightly bifid at the tip, the other claws are strongly divergent, and equally cleft underneath; abdomen compressed laterally; antennæ 10-jointed, club of male as long as the head.

This genus is a form of transition between *Idæserica*, which has a moderately constricted clypeus, and those in which the clypeus is strongly constricted, and tri-dentate in front. In *Idæserica* the anterior tarsal joints are not unlike those of *Dolerotarsa*, but they are not fused, and the shape of the anterior claws of the male is different.

DOLEROTARSA EMENDATRIX, n. spec.

Testaceous-red, with the elytra testaceous yellow, antennæ flavous; head deeply and slightly roughly punctate from the apex of the clypeus to the basal part; clypeus not tri-dentate in front, strongly constricted laterally at a short distance from the apex the margin of which is slightly arcuate with the outer angles sharp, the frontal suture is only moderately deep and the genæ strong and oblique; antennal club of male nearly as long as the head; prothorax broader at the base than at the apex, hardly sinuate laterally behind, closely punctate; scutellum elongate, ogival; elytra elongated, sub-parallel, barely covering the anterior part of the propygidium, plainly striate with the intervals raised and tectiform in the dorsal part, very numerously punctate, glabrous; abdominal segments with a double row of punctures; coxæ as deeply punctate as the metasternum, and plainly concave; pectus glabrous; anterior tibiæ with only the apical tooth well defined, the second one being reduced to a mere

sinuation, no inner spur; tarsi, including the anterior ones which are seemingly fused, long.

Length 5–5½ mm.; width 2½–3 mm.

Hab. Transvaal (Lydenburg District).

ARRAPHYTARSA, n. gen.

Clypeus nearly similar to that of *Allokotarsa;* antennæ also 10-jointed with the third joint shorter than the fourth and fifth, sixth and seventh short, compressed, club of male tri-jointed, slightly shorter than the pedicel; body of *Allokotarsa*, abdomen also compressed laterally; the male, however, differs from *Allokotarsa* in the shape of the anterior tarsi which are fused together and compressed into a lamina straight outwardly, but dentate inwardly at the suture of the joints which is not quite obliterated, the ultimate joint is longer than the two preceding taken together, the outer claw is deeply cleft, the inner tooth being broader than the outer, the inner claw is long, slender, and cleft at the tip; anterior tibiæ bi-dentate outwardly, but with a slight angular projection above the basal tooth.

Arraphytarsa damarina, n. spec.

Piceous or testaceous-red, with a silky sheen, antennæ flavous; clypeus hollowed in front, constricted laterally in the anterior part, anterior margin slightly sinuate with the median part strongly acuminate, the outer angles are distinct, but not projecting, the post-median keel runs parallel with the frontal suture, and the genæ are strongly developed, the head is covered with closely set punctures larger than those covering the clypeal part; prothorax moderately convex, and much rounded laterally, nearly straight there in the posterior part, covered with somewhat deep, equi-distant punctures, and with a lateral fringe of short, stiff ciliæ; scutellum deeply punctate; elytra sub-cylindrical, punctulato-striate with the intervals slightly convex and deeply punctured; pygidium and under side punctulate; anterior tibiæ bi-dentate outwardly, but with a slight projection above the basal tooth; intermediate and posterior tarsi long, filiform.

Length 5½ mm.; width 3 mm.

Hab. Damaraland.

ALOGISTOTARSA, n. gen.

All the characters are those of *Arraphytarsa*, including the very strongly compressed abdomen, but the shape of the anterior tarsi of

the male differs greatly from that of *Arraphytarsa* or *Allokotarsa;* the joints are cylindrical, fused without traces of suture, the place of the latter is, however, indicated by one or two inner and outer bristles, the last joint is slightly dilated at the tip, the inner claw is short, double, the inner tooth much thicker than the outer, the outer claw is much longer, not deeply cleft at the tip, and the inner lobe is wider than the outer; intermediate and posterior claws very deeply cleft, the two teeth strongly hooked, the upper one only half the thickness of the lower.

Key to the Species.

Light straw-colour, with an iridescent sheen; prothorax and elytra very slightly punctulate .. .. *straminea.*

Testaceous, without any iridescent sheen; prothorax and elytra plainly punctate .. .. *ovampoana.*

ALOGISTOTARSA STRAMINEA, n. spec.

Light straw-colour, with an iridescent sheen, head more or less deeply infuscate; clypeus constricted laterally close to the apex and with the anterior margin plainly tri-dentate, excavate in front of the supra-median transverse keel which runs parallel to the frontal suture, apical part of the clypeus smooth, posterior finely punctate, frontal part also closely punctate; prothorax rounded laterally in the anterior part, but not towards the base the angles of which are distinct, somewhat convex, fringed laterally with equi-distant bristles, and covered with fine, shallow punctures; scutellum faintly punctate; elytra sub-cylindrical, striate, with the punctures on the non-convex intervals slightly rugose, and not deep; abdomen and metasternum very strongly compressed laterally, iridescent; pygidium convex, punctulate, each abdominal segment with a row of deep setigerous punctures.

Length $5\frac{1}{2}$ mm.; width $2\frac{4}{5}$ mm.

Hab. Orange River Colony (Bothaville).

ALOGITOTARSA OVAMPOANA, n. spec.

The description of *A. straminea* applies entirely to this species, which, however, differs in being much more deeply punctured all over, in the absence of iridescence, and in being testaceous instead of straw-coloured; the frontal part of the head is redder than the prothorax, but is not infuscate, and the striation on the elytra is deeper than in *A. straminea.*

Length 6 mm.; width $3\frac{1}{4}$ mm.

Hab. Ovampoland.

Gen. TROCHALUS, Cast.,

Mag. Zool., Col. ix., 1832, pl. 44.

Mentum elongate, cordiform from the constricted lateral part to the very narrow base, convex, and hairy, fused with the depressed ligular part the outer angles of which are rounded and the anterior part emarginate, labial palpi short; maxillæ robust, straight, provided inwardly with three or four sharp teeth, last joint of labial palpi sub-cylindrical; clypeus longer than the frontal part, mostly always very strongly narrowed laterally in the anterior, the constriction being edged by the strongly reflexed lateral margin which is strongly sinuate and often aculeate below the genæ. This margin is either normal, *i.e.*, it is continued as the edge of the outer anterior angles (*T. ferrugineus*) or disappears before reaching the very strongly reflexed anterior part (*T. modestus*), or again is produced diagonally across the anterior part and reaches there the anterior margin either in the centre (*T. damarus*) or at a short distance from it (*T. badius*); whenever this upper lateral margin is diagonal, the lower margin of the clypeus becomes more visible, the anterior margin is always strongly reflexed, and either sharply or bluntly tri-dentate, or not even aculeate in the centre, and the median tooth is never prolonged into a longitudinal keel dividing the not very hollowed anterior part into two as in the genus *Ablaberoides*, but many species have a longitudinal median keel, sometimes even very conspicuous, which, however, does not reach either the base of the median anterior tooth, or the sharp transverse carina which divides the clypeus from the frontal part; the latter bears in some species (*T. chloris*, *T. vagus*, &c.) a transverse groove sometimes more shallow in the female than in the male, equi-distant from the frontal keel and the base and running parallel to it; antennæ 11-jointed, club 3-jointed, as long as or longer in the male than the pedicel; prothorax short, convex, ampliated laterally from the anterior to the basal angle; scutellum long, sharply acuminate; elytra sub-spherical, ovate or elongato-ovate, mostly striate in the dorsal part only; anterior tibiæ bi- or tri-dentate outwardly, the trochanters of the anterior pair broadly triangularly dilated, hind femora broad, posterior tibiæ broadly dilated, shorter than the femur, having one distinct and another partly obliterated transverse chevron-like ridges, inner margin stiffly bristly; anterior tarsi somewhat short, posterior ones longer, hind spurs of the latter longer than the basal joint; claws symmetrically cleft underneath; pygidium slightly convex, hind coxæ very slanting and narrow at the base.

The type of the genus, as restricted by Brenske, is *T. rotundatus*, Casteln., from Senegambia. Until all the numerous species included hitherto into this genus have been revised, it is impossible to say which belong to *Trochalus*, *Ablaberoides*, or other kindred genera,* or to obtain an idea of their distribution in Africa, to which continent they are restricted. In South Africa they are widely distributed, several of the species described by Fåhræus as from Natal, or what is now the Transvaal, have been recorded by me from Damaraland and from Ovampoland in the neighbourhood of the Cunene River, but only one species is recorded from the south-western part of the Cape Colony, *T. ærugineus*, and it ranges from ? Cape Town and Mossel Bay to Natal and the Transvaal.

Burmeister described six species from South Africa. Although I have not been able to compare, or to have my examples compared with the types, I have identified with tolerable certainty three of these species described again under another name by Fåhræus, and which have therefore priority; another species is probably the very type of the genus *Ablaberoides* of Blanchard; the fifth, having a 4-jointed antennal club, may prove to belong to the genus *Microtrochalus*, in which case it would be a female and not a male as suggested by Burmeister; I have not been able to identify the sixth, which I suspect, however, to be identical with another species.

Key to the Species.

A². Vertex with a transverse groove running parallel with the base of the head.

B². Clypeus strongly constricted laterally.

*a*². Anterior tibiæ bi-dentate.

Clypeus tri-dentate in front, and with the lateral margin reaching the outer angle of the reflexed anterior margin.. *vagus.*

Clypeus not tri-dentate in front, lateral margin reaching the centre of the anterior one .. .. *damarus.*

*a*¹. Anterior tibiæ tri-dentate.

Clypeus angular in the centre of the anterior margin, lateral margin reaching the outer angle .. .. *chloris.*

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* Gerstaeker has described (Gliederthier-Fauna d. Sansibar Gebietes) 3 pecies of *Trochalus;* from his descriptions and also from his comparisons, *T. chrysomelinus*, which he compares to *T. picipes*, Klug., it having no frontal keel, is not a *Trochalus; T. corinthia*, which he compares to *T. bohemani* is most likely a species of *Ablaberoides*, but he is wrong in ascribing to *T. bohemani* a transverse impression behind the eyes; I have now before me the *type* of this species, and there are no traces whatever of the said impression. *T. sulcipennis* is plainly a species of *Ablaberoides*, as proved by the shape of the clypeus.

A¹. Vertex simple.

B². Clypeus strongly constricted laterally.

C³. Clypeus very sharply tri-dentate, sides sharply aculeate.

Anterior tibiæ tri-dentate; elytra deeply striate .. .. *mashunus.*

Anterior tibiæ bi-dentate; elytra not deeply striate .. *inops.*

C². Clypeus moderately sharply tri-dentate and with a longitudinal keel.

*a*². Elytra ampliated laterally in the middle.

Elytra finely yet distinctly striate, punctures deep .. *exasperans.*

Elytra very indistinctly striate, intervals aciculate .. *rubricatus.*

*a*¹. Body very broadly ampliated, much rounded behind.

Clypeus very narrow, upper side opaque, lateral striæ of elytra obliterated.. .. .. *byrrhinus.* *orbiculatus.*

C¹. Clypeus not tri-dentate in front.

*b*². Clypeus with a longitudinal keel.

a. Elytra ampliated laterally in the middle.

*c*². Clypeal outer margin not reaching the anterior one.

Clypeus very narrow at apex, angles rounded, elytra striolate .. .. *modestus.*

*c*¹. Clypeal outer margin connected with the anterior one.

Clypeus quadrate, outer angles not rounded .. .. *badius.*

Clypeus sub-aculeate in the centre, outer angles broadly rounded .. .. *placens.*

*b*¹. Clypeus without a longitudinal keel.

*d*². Clypeal outer margin connected with the anterior margin.

Clypeus broadly rounded laterally .. .. *fulgidus.*

*d*¹. Clypeal outer margin connected with the anterior angle.

Chestnut-red, shiny, iridescent, anterior tibiæ bi-dentate .. .. *picipes.*

Red or bronze-green, shiny, not iridescent, anterior tibiæ tri-dentate .. .. *ærugineus.*

Bronze-green, quite opaque; anterior tibiæ tri-dentate, basal tooth weak .. .. *lepidus.*

B¹. Clypeus very little constricted laterally.

Clypeus without a longitudinal keel.

Testaceous-red, clypeus tri-dentate in front .. .. *sebakuanus.*

Testaceous-red, clypeus truncate in front.. .. .. *urbanus.*

TROCHALUS VAGUS, n. spec.,

Plate XLVI., fig. 31.

Reddish, metallic, shining, or clothed with a sub-opaque moderately iridescent indumentum; antennæ flavous; body ampliato-ovate, convex; clypeus narrowed in the anterior part where it is straight laterally, thence broadly ampliated, with the upper margin strongly sinuate next to the terminal part of the frontal keel, and barely reaching the depression of the anterior part which is strongly reflexed, with the outer angles moderately sharp and the median part plainly dentate, the clypeal median longitudinal keel is long, the frontal keel high, and at a short distance from the base there is a transverse groove reaching the hind part of the eyes, and deeper in the male than in the female; the clypeus is sparsely punctate, the punctures on the frontal part more numerous and therefore much more closely set; prothorax gradually ampliated from the anterior to the posterior angles the latter of which is sharp, it is twice as broad as long, deeply punctate with the punctures separated by an interval nearly equal to that of their own diameter; scutellum very long, sharply triangular, closely punctate; elytra somewhat ampliated laterally in the middle, convex in the anterior part, weakly striate in the dorsal, the striæ numbering five or six on each side, the intervals have the same punctuation as the prothorax, and very few and very short setæ near the humeral part only of the outer margin; the convex pygidium is very deeply punctate, and briefly setulose along the margin; the under side is almost glabrous, except for the villose femora, the abdominal segments are very deeply and numerously punctate, and the trochanters of the anterior tibiæ are very broadly dilated, and the anterior tibiæ bi-dentate. The shape of the genital armature of the male is almost identical with that of *T. byrrhinus* (pl. xlvi., fig. 31) when seen sideways, but the forceps-like clasps enclose a wider space if seen from above.

Length 7–8 mm.; width 5–6 mm.

Hab. Southern Rhodesia (Salisbury).

TROCHALUS DAMARUS, n. spec.

Elongato-ovate, convex, chestnut-brown, shiny, faintly iridescent, antennæ flavous; very closely allied in general appearance to *T. badius*, but easily distinguished by the transverse impression along the base of the head; it is plainly allied to *T. vagus*, but whereas in that species the lateral margins of the clypeus reach

very close to the basal part of the strongly reflexed outer angle, in *T. damarus* they are connected with the central part of the reflexed anterior margin; the longitudinal keel is almost obliterated, and the frontal part is scrobiculate instead of being punctate as in *T. vagus*, the punctures on the elytra are also deeper; in the female the basal groove on the vertex is not so deep as in the male; anterior tibiæ bi-dentate outwardly.

Length 7–7½ mm.; width 5–5½ mm.

Hab. Northern Damaraland, Ovampoland (Humbe).

Trochalus lucidulus, Burm.,

Handb. d. Entomol., iv., 2, p. 161.

T. chloris, Făhr., Insect. Caffr., ii., p. 132.

Ovate, greenish-bronze, shiny, antennæ flavous; clypeus normally constricted laterally, with the lateral margin continued as the edge of the reflexed but not projecting outer angle, anterior margin angular, but not sharply dentate in the centre, there is a very faint, longitudinal raised part which, however, is not keeled, and running parallel to the base and equi-distant from the base and the transverse frontal keel there is a transverse, moderately shallow groove which does not reach the sides, the surface of the clypeal and of the anterior frontal parts is deeply and roughly punctate; the punctures on the prothorax are fine and closely set; the elytra have four dorsal striæ, somewhat ill-defined with the exception of the juxta-sutural one, and the intervals are plainly punctate; anterior tibiæ bi-dentate outwardly.

Length 5½ mm.; width 4 mm.

Hab. Natal (Durban).

Very like green examples of the short form of *T. ferrugineus*. I have not seen Burmeister's type, but his description, especially that of the vertex of *T. lucidulus*, *i.e.*, "vertex with a double transverse impression," agrees very well with my co-type of *T. chloris*, Făhr. Burmeister's example was probably also a female.

Trochalus mashunus, n. spec.,

Plate XLVI., figs. 29, 30.

Reddish-brown or chestnut-brown, moderately shiny, more or less strongly iridescent; antennæ flavescent; body massive, not spherical, clypeus strongly narrowed laterally, very sharply tri-dentate in front, and with the strongly sinuated lateral margin almost dentate above the narrowed anterior part, and meeting the

base of the strongly reflexed outer angle, the median longitudinal clypeal keel is short, but conspicuous, the frontal transverse keel is very highly raised, the punctures are deeper on the clypeal than in the frontal part, and more numerous along the base; prothorax of the same shape and with the same sculpture as *T. vagus;* scutellum similar; elytra very slightly ampliated laterally past the median part, and with the intervals deeply, moderately closely and somewhat roughly punctate, epipleural fold with a series of extremely short hairs; under side as in *T. vagus*, but the punctures of the abdominal segments, apart from the setigerous row, are much shallower; the anterior tibiæ are tri-dentate, but the upper tooth is blunt. The shape of the clasps of the genital armature of the male is rightly delineated in fig. 29; these same clasps as figured under the number 30 have been somewhat distorted in the mounting.

Length 9–10 mm.; width 6–7 mm.

Hab. Southern Rhodesia (Salisbury).

Trochalus inops, n. spec.

Chestnut-brown, shining, iridescent; antennæ flavescent, except the two basal joints of the pedicel, which are sub-ferruginous; it is much smaller than *T. mashunus* and plainly ovate; the clypeus is as sharply tri-dentate in front, and the lateral margin as sharply aculeate, but the median, longitudinal tubercle is hardly distinct; the anterior tibiæ are bi-dentate outwardly; the punctures on the prothorax and scutellum are equally deep; the elytra are also as deeply punctate, but apart from the juxta-sutural one the striæ are nearly obliterated.

Length 5–6 mm.; width 4 mm.

Hab. Southern Rhodesia (Mazoë), Ovampoland.

Trochalus exasperans, n. spec.

Bronze, with an iridescent sheen turning to reddish-bronze, antennæ flavescent; intermediate in shape between *T. mashunus* and *T. rubricatus*, the elytra are a little more ampliated laterally, the clypeus is not so sharply tri-dentate, the punctuation is the same as in *T. mashunus* and different from that of *T. rubricatus*, in which the aciculate punctures, especially of the elytra, are hardly distinct, and in which also the antennal club of the male is much longer; the shape of the clasps of the genital armature resembles more that of *T. mashunus*, from which it mainly differs in the more ampliato-ovate elytra, the more bluntly tri-dentate clypeus, a longer antennal

club in the male, and also in having the anterior tibiæ plainly bi-dentate.

Length 7–9½ mm.; width 6½ mm.

Hab. Southern Rhodesia (Sebakwe, Salisbury).

Trochalus rubricatus, Bohem.,

Plate XLVI., fig. 27.

Ofv. Vet. Ak. Förh., 1860, p. 116.

Reddish, opaque, faintly metallic, more sericeous on the upper part than iridescent, antennæ flavescent, the club very long in the male; more ampliate laterally in the posterior part than any of the preceding species, it is also distinguished by the very long club of the antennæ in the male, the more bluntly tri-dentate clypeus, the very finely punctulate prothorax as well as the aciculate elytra, the aciculation being almost hidden by the sub-opaque indumentum, the striæ are also hardly distinct; the tibiæ are bi-dentate, and the hind tibiæ more broadly dilated inwardly; the figure of the genital armature is not quite correct, owing to the right forceps being more twisted than in the original. There is, however, a great similarity in these organs in *T. mashunus*, *exasperans*, and *rubricatus*, showing that these three species are closely allied; it is more closely allied to *T. exasperans*, but the punctuation is different.

Length 7½–8½ mm.; width 5–6 mm.

Hab. Natal (Durban, Zululand); Boheman records it from the Lake N'Gami region.

Trochalus byrrhinus, Fähr.,

Insect. Caffr., ii., p. 129.

? *T. atratus*, Burm., Handb. d. Entomol., iv., 2, 1885, p. 161.

Sub-spherical, short, plainly convex in the anterior part of the elytra, dark bronze, opaque; antennæ flavescent; clypeus with the median anterior margin plainly dentate or not and the outer angles sharp but not reflexed in the male, it has a long longitudinal keel reaching nearly from the frontal transverse one to the anterior depression, and the punctuation is deep and moderately closely set; prothorax short, more than twice broader than long, and very closely and finely punctate; prothorax triangular, as broad at the base as long; elytra plainly ampliated, faintly striate in the dorsal part, and with the punctures hardly visible in well-preserved specimens, not deep, and somewhat scattered in rubbed examples; under side with the normal sculpture and vestiture, posterior tibiæ strongly ampliated

inwardly; in the male the clasps of the genital organs are symmetrical, somewhat narrow, and forceps-like.

Length 7–7½ mm.; width 5–5¾ mm.

Hab. Southern Rhodesia (Sebakwe, Victoria Falls, Salisbury); Transvaal (Zoutpansberg, Lydenburg); Mozambique (Beira); Natal (Frere, Durban).

This species will probably prove to be identical with *T. atratus*, Burm.

TROCHALUS ORBICULATUS, n. spec.

Very broadly ampliated, almost orbiculate, but not very much convex, chestnut-brown or somewhat dark bronze, opaque, antennæ flavous; closely allied in general appearance to *T. byrrhinus*, but not so convex; the clypeus is nearly truncate in front, with the angles sharp but not reflexed in one of my two examples (♂), tri-dentate in the other (♀), the median longitudinal keel is quite plain; the sculpture is the same as that of *T. byrrhinus;* the shape of the genital organs is, however, very different: instead of two symmetrical forceps-like clasps, there is on the right side an horizontal, laminate, deeply emarginate, elongate process the upper margin of which is deeply notched near the base, and the apical part recurved and rounded. I have seen two examples only.

Length 6½–6¾ mm.; width 5¼ mm.

Hab. Transvaal (Lydenburg, Zoutpansberg).

TROCHALUS MODESTUS, Péring.,
Trans. S. Afric. Philos. Soc., vol. vi., 1892, p. 32.

Elongato-ovate, testaceous-red, shiny, not iridescent; antennæ flavescent, with the club very long in the male; the facies is that of *T. placens*, but it is less convex, and the shape of the clypeus differs, the anterior part projects also in the middle without being toothed, very much as in *T. placens*, the outer angles are equally rounded, but the lateral margin does not reach the anterior one, and is very much raised above the constricted part; the punctuation is similar, but the elytra, which are also more parallel, are plainly striolate on the dorsal and lateral parts.

Length 6¼ mm.; width 4 mm.

Hab. Ovampoland (Omrramba).

TROCHALUS BADIUS, Boh.,
Ofv. Vet.-Akad. Förh., 1860, p. 115.

Elongato-ovate, convex, dark chestnut with a sub-metallic and opaline sheen; antennæ flavescent; clypeus quadrate and truncate

in front, that is to say not dentate in the median part of the anterior margin, and having a median somewhat short, longitudinal keel, the lateral margins are moderately sinuate and are continued inwardly to a short distance from the anterior angle, and abut nearly on the reflexed anterior margin; prothorax of the usual shape, and deeply punctate; scutellum normal and closely punctate; elytra elongato-ovate, faintly striate except in the posterior part where the striæ, especially the lateral ones, are a little more distinct, but the two supra-marginal ones are distinct from base to apex, the intervals are coarsely punctured. I have not seen the male of this species.

Length 8½–10 mm.; width 6–6½ mm.

Hab. Ovampoland.

Trochalus placens, n. spec.

Reddish-brown, ampliato-ovate, convex and very shiny, antennæ rufescent; shorter and more ampliate than *T. badius*, and resembling greatly *T. fulgidus;* the clypeus is strongly keeled longitudinally, very narrowed in front, and the outer angles are as much rounded as in that species, but the anterior median part projects a little, and the lateral margin which is very strongly raised above the lateral constricted part, slants thence towards the anterior one which it reaches at a short distance from the rounded outer angle in the manner of *T. badius*, but in the latter the lateral margin is not strongly sinuate, nor is it as much raised as in *T. placens*, and the punctures, although deep, are not so coarse. The shape of the lateral margin of the clypeus greatly resembles that of *T. modestus*, but in this species, which is much less ampliato-ovate, it does not reach the anterior edge.

Length 7 mm.; width 5 mm.

Hab. ? Transvaal.

Trochalus fulgidus, Fähr.,

Insect. Caffr., ii., p. 130.

? *T. splendidulus*, Fähr., loc. cit., p. 129.

Strongly ovate, chestnut-red, or dark bronze, shiny, moderately iridescent; antennæ rufescent; clypeus very narrow, straight in front but with the outer angles rounded, the lateral margin is only moderately raised above the lateral constriction and produced thence towards the anterior margin, which it reaches at a short distance from the rounded outer angle, much in the same manner as in

T. placens and *T. badius*, but there is no longitudinal keel; the sculpture of the head, prothorax, and elytra is the same as in *T. placens*, from which it is distinguished by the truncate median part of the anterior clypeal margin and the much less raised lateral one.

Length 6–7 mm.

Hab. Natal, teste Fåhræus; Mozambique (Delagoa Bay).

TROCHALUS BOHEMANI, Gerst.,

Arch. f. Naturg. xxxiii. i., 1866, p. 44.

T. picipes, Fåhr., Insect. Caffr., ii., p. 126.

Dark bronze, turning sometimes to chestnut-red, strongly iridescent, legs reddish, antennæ flavescent; more ampliato-ovate than *T. badius*, and also shorter, but whereas in *T. badius* the outer margin of the clypeus is plainly connected with the anterior one at a distance equi-distant from the centre and the sharp outer angle, in *T. picipes* the outer margin is continued to the edge of the outer angle, and the longitudinal keel is moderately conspicuous; the striæ on the elytra are hardly distinct except the juxta-sutural one, and the punctures on the head, prothorax, and elytra are not so deep as in *T. badius*, but similar to those of *T. splendidulus* which it resembles more than even *T. badius*, except in the shape of the clypeus.

Length 7–8 mm.; width 5–5½ mm.

Hab. Transvaal (Pretoria, Zoutpansberg, Lydenburg).

TROCHALUS ÆRUGINEUS, Burm.,

Handb. d. Entomol., iv., 2, p. 160.

T. ferrugineus, Fåhr., Ins. Caffr., ii., p. 137.

Ovate and very convex, elongato-ovate or elongate, either completely ferruginous-red or dark bronze, with the head green and the elytra reddish, or completely bronze-green, shining, not iridescent, antennæ flavous; clypeus truncate in front and with the angles sharp but not reflexed, the lateral margin is continued as the edge of the outer angle, there are no traces of longitudinal keel; the punctures in the anterior part are deeper and more rugose than on the frontal; the prothorax and elytra are very closely punctate, the latter have occasionally one, somewhat faint, stria in addition to the juxta-sutural one; the anterior tibiæ are tri-dentate, but the upper tooth is very often merely angular, and disappears also completely. The valves of the genital armature are very short, and somewhat resemble those of *T. mashunus*.

Length 6–8 mm.; width 4–5½ mm.

Hab. Cape Colony (? Cape Town, Mossel Bay, Port St. John); Natal (Durban); Transvaal (Zoutpansberg, Lydenburg).

The variation in the size and convexity of the body is such that had it not been for the shape of the genital armature I would have considered these variations as good specific characters; the colour is also very variable.

Trochalus lepidus, n. spec.

Bronze-green, with the elytra brownish-red or partly rufescent, opaque on the upper side, and occasionally sub-iridescent; antennæ flavous; as elongato-ovate as *T. ferrugineus*, but easily distinguished by the opaque indument on the upper side; the sculpture and the shape of the clypeus are as in *T. ferrugineus;* in the male the right valve of the genital armature is a little longer than in the last-named species, but the shape is almost the same in both.

Length 6–6½ mm.; width 3¾–4 mm.

Hab. Transvaal (Lydenburg).

Trochalus urbanus, n. spec.

Elongato-ovate, testaceous-red, shining; antennæ with the pedicel testaceous and the club flavous; clypeus truncate in front and without any angular part in the centre of the anterior margin, the outer angles are plain but not reflexed, the anterior part is only very slightly constricted laterally, and the lateral margin is not strongly sinuate; the punctures on the clypeal part are deeper than on the frontal; the prothorax and the elytra are deeply and somewhat closely punctate, the elytra are plainly striate on the sides as well as on the dorsal part; the clypeus has no traces whatever of a longitudinal keel; anterior tibiæ bi-dentate.

This species is easily distinguished by the clypeus, which is very little constricted laterally.

Length 6½ mm.; width 4 mm.

Hab. Southern Rhodesia (Salisbury).

The valves of the genital armature are symmetrical, acuminate, bent at the base, and sub-horizontal thence.

Trochalus sebakuanus, n. spec.

Shape, colour, and sculpture of the preceding species, from which it differs by the shape of the clypeus, which is constricted laterally,

although much less strongly than in the other species of *Trochalus*, the median part of the anterior margin is also plainly angular, which is not the case in *T. urbanus*, and as the outer angles are reflexed this anterior margin is therefore tri-dentate, there are no traces of a longitudinal keel; the anterior tibiæ are bi-dentate.

Length 5 mm.; width $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Sebakwe).

(*Species unknown to me or which I have not been able to identify.*)

TROCHALUS PICEUS, Fabric.,

Syst. Eleuth., i., p. 46; Olivier, Entomol., i., 5, p. 47, pl. v., fig. 43; Burm., Handb. d. Entomol., iv. 2, p. 161.

"Sub-globose, ferruginous, sub-fuscous, and with a coppery sheen; densely punctate; elytra very obsoletely striate, the sutural stria not much impressed.

Length $2\frac{3}{4}$–3 lin.

More spherical than the preceding form (*T. ærugineus*), but not quite spherical; vivid brown, sometimes paler, sometimes darker, and with a strong bronze sheen, densely and finely punctate; elytra very weakly striate, the sutural stria is more marked than the others; head with a high transverse ridge between the frontal part and the clypeus, the latter slightly convex, more coarsely punctate; pygidium and under side with more scattered and coarse punctures."

I am inclined to consider this species as identical with the short, and therefore more convex, form of *T. ærugineus*, which, as I have already mentioned, occurs also in Cape Colony. Burmeister's example was collected by Ecklon. This collector did not, to my knowledge, collect Insects in Natal or the Transkei, until long after the publication of Burmeister's book.

TROCHALUS PICIPES, Klug.,

Monatsb. Berl. Ac., 1855, p. 659; Peter's Reis., 1862, p. 258.

"Globose, fuscous-black, pectus and legs piceous. Length 4 lin. Only one example from Tette. Shape and size of *Byrrhus pilula*. Belongs to the first section proposed by Burmeister for species with bi-dentate anterior tibiæ. The upper side is deep dark brown, almost black, and without sheen. Head and prothorax tolerably densely and elytra scarcely visibly punctured, the latter indistinctly striate. Under side and legs dark piceous-brown."

Gen. DOLEROSERICA, n. gen.

Mentum and buccal organs of the usual shape; antennæ 10-jointed, antennal club 3-jointed, very long in the male; clypeus not constricted laterally, but gradually narrowed from the base in the manner of *Autoserica*, *Neoserica*, &c., separated from the head by a frontal suture, and having no clypeal keel or suture, nor is the anterior part depressed or excavated along the anterior margin; eyes strongly divided in the anterior part by the genal canthus which projects very much, and having also a posterior keel situated higher than the genal canthus and not connected with it; body more or less iridescent, often with a silky sheen, either short and convex, or sub-elongated and only moderately convex, glabrous except for a few setæ near the anterior angle of the prothorax and along the marginal fold of the elytra; anterior tibiæ bi-dentate outwardly; hind coxæ short, very broadly dilated inwardly, and with two sets of diverging bristles on the upper margin; hind tibiæ either broadly ampliated inwardly or not; anterior tarsi somewhat short, posterior fairly long, hind spurs longer than the basal joint which is not longer than the second, claws slender, very little divaricating, cleft underneath, but with the upper tooth not abruptly curved; coxæ very broad, their apical margin quite straight; trochanters of anterior legs not broadly dilated.

Key to the Species.

A². Body ampliato-ovate, hind tibiæ broadly dilated inwardly.

Clypeus emarginate in front, upper side of body opaque, very silky *curtula.*

Clypeus emarginate in front, upper side of body shiny .. .. .. *gentilis.*

Clypeus straight in front, upper side of body opaque, very silky .. *laetula.*

A¹. Body elongated, hind tibiæ not broadly dilated inwardly.

Anterior margin of clypeus sinuate, sub-angular in the centre .. .. *festa.*

Anterior margin of clypeus quite straight .. .. *auspicata.*

Doleroserica curtula, Fähr.,

Insect. Caffr., ii., p. 137.

Bronze-black, opaque on the upper side, sericeous and with a strong iridescent sheen, antennæ piceous-red; clypeus deeply emarginate in front with the outer angles slightly rounded, the margins are slightly reflexed, the anterior one is not aculeate in the centre, the strongly diagonal lateral one is not sinuate, the genæ are strongly slanting and project much beyond the eye, the posterior keel is on a

higher level than the genal canthus, broadly separated from it, and very distinct, there is a frontal arcuate suture, the clypeal part which is very faintly depressed close to the anterior margin is scrobiculato-punctate, the frontal moderately closely punctate; prothorax much broader at the base than at the apex, convex, faintly bi-impressed near the basal margin, closely punctate, but the punctures are hidden by the silky opaque indumentum; scutellum sharp, punctate; elytra very plainly ampliated towards the posterior part, short, very convex and having on each side seven very plain striæ with the intervals slightly convex in the posterior part; anterior tibiæ bi-dentate, posterior ones broadly dilated inwardly, basal joint of hind tarsi slightly shorter than the second, and also shorter than the hind spurs.

Length 4–5 mm.; width $2\frac{3}{4}$–$3\frac{1}{4}$ mm.

Hab. Natal (Durban).

Doleroserica gentilis, n. spec.

Chiefly allied to *D. curtula*, from which it differs by the more deeply notched anterior margin of the clypeus and the non-opaque upper part of the body which is bronze, moderately shining and faintly iridescent in the posterior part of the elytra, the latter part is striate in the dorsal part only, and not as ampliated behind as in *D. curtula*.

Length 5 mm.; width $3\frac{1}{2}$ mm.

Hab. Natal (Newcastle).

Doleroserica laetula, n. spec.

Bronze-red, quite opaque and sericeous on the upper surface, shiny and iridescent underneath; antennæ ferruginous-red; clypeus not at all constricted or sinuate laterally, straight at apex with the outer angles slightly rounded, the margin is moderately reflexed and not angular in the centre, genal keel strongly projecting, anterior part scrobiculate, frontal deeply punctate, but not along the base, frontal suture slightly bi-sinuate; prothorax sub-arcuate laterally, much broader at the base than at the apex, somewhat closely punctate, and having above the median part of the base a long, transverse impressed line; scutellum punctulate; elytra ovate, convex in the anterior part, striate on the dorsal and sides but not near the humeral lateral part, intervals moderately closely punctate; basal joint of hind tarsi nearly as long as the following one.

The shape of the head is almost similar to that of the species of *Autoserica*.

I have seen only one male example of this species, which is easily recognised by the transverse impressed line running parallel with the base of the prothorax.

Length $6\frac{1}{4}$ mm.; width $4\frac{1}{2}$ mm.

Hab. Mozambique (Beira).

Doleroserica festa, n. spec.

Moderately shining, bronze-green on the head and prothorax, redder bronze on the elytra, almost black on the under side, antennæ flavous; clypeus attenuated laterally from the genæ to the anterior angle, anterior part arcuately emarginate but slightly angular in the centre, clypeal part deeply and closely punctate, frontal deeply punctate in the anterior but not in the basal; prothorax slightly arcuate from the apex to near the median part, and nearly straight thence to the base which is, however, wider than across the apex, deeply and very closely punctured; scutellum also closely punctate; elytra sub-parallel, not very convex in the anterior part, very deeply striate in the dorsal, and plainly so on the sides, the intervals, which are somewhat convex in the posterior part, are very deeply and somewhat roughly punctate; the basal joint of the hind tarsi is somewhat shorter than the second, and the hind tibiæ are not broadly dilated inwardly as in the three preceding species.

Length 5–6 mm.; width 3–$3\frac{3}{4}$ mm.

Hab. Transvaal (Lydenburg).

Doleroserica auspicata, n. spec.

Bronze-black underneath, with the head, the prothorax with the exception of a very broad median patch, and the scutellum bronze-green; elytra flavescent; legs testaceous-red, antennæ flavous, moderately shiny on the upper side and slightly iridescent in the posterior part of the elytra; the antennal club of the male is as long as the prothorax; clypeus attenuate laterally, quite straight in front, deeply punctured, frontal part less deeply punctured; prothorax slightly arcuate from the apex to about the median part, nearly straight thence to the base which is, however, wider than the apex, somewhat closely and moderately deeply punctate; scutellum ogival, punctate; elytra sub-parallel, deeply striate in the dorsal part, and less distinctly so on the sides, intervals roughly punctate, slightly convex in the posterior part; basal joint of hind tarsi much shorter than the second, hind tibiæ not broadly dilated inwardly.

Length $4\frac{1}{2}$ mm.; width $2\frac{1}{2}$ mm.

This species is not unlike in general appearance *Ablaberoides æneus*,

but differs of course in the shape of the clypeus and the utter absence of the clypeal keel.

Hab. Natal (Durban).

I think that Burmeister's following species belongs to this genus, and I should not be at all surprised if it were identical with *D. curtula*, Fähr.

SERICA CARBONARIA, Burm.,

Handb. d. Entomol., iv., 2, p. 167.

Antennæ 10-jointed, body in general short, spherical; mesosternum broader, middle coxæ considerably remote.

"Very deep black, with an iridescent sheen (margaritaceo-micans); elytra completely opaque, striate, clypeus shining.

Length $2\frac{3}{4}$ lin.

From South Africa. Short and compact, uniformly black; under side and prothorax with a bright pearly sheen, finely punctured; clypeus shiny, densely punctured; elytra completely opaque, distinctly striate, finely punctate, in each puncture a grey, smaller puncture; antennæ and legs shiny black."

GEN. MICROTRACHELUS, Brensk.,

Berl. Ent. Zeit., 1900, p. 81.

Buccal organs of *Trochalus* and *Ablaberoides*; clypeus very strongly constricted and very sharply tri-dentate, lateral margin also sharply dentate, genæ very oblique and not meeting quite the hind ocular keel, anterior part of the clypeus strongly reflexed with the median tooth continued as a short, longitudinal keel, the depressed part is edged by a slight transverse impression, and there is a frontal, faint suture; antennæ 9-jointed, club 5-jointed in the male, 4-jointed in the female, longer than or as long as the pedicel, according to the sex; body short, convex; anterior tibiæ tri-dentate; the rest as in *Ablaberoides*.

MICROTRACHELUS PLAGIGER, Pér.,

Trans. S. Afric. Philos. Soc., vol. vi., 1892, p. 33.

M. bipunctatus, Brensk., Berl. Ent. Zeit., 1902, p. 17.

Dark bronze-green, sub-opaque, but occasionally slightly iridescent on the prothorax only, elytra pale testaceous-yellow with an outer marginal, a basal and a sutural bronze-green band not impinging on the six discoidal intervals, and having also an elongated or oftener sub-quadrate discoidal patch situated at about the median

part and extending across the 3–5 intervals, the legs are redder than the under side, yet distinctly æneous, the palpi and the antennæ are somewhat flavescent but with the club of the latter infuscated from the median part to the apex; the antennæ are 9-jointed, the club is long and 5-jointed in the male, all the joints of the club being equal in length, it is nearly equally long but only 4-jointed in the female, but the inner joint is a little shorter than the following three; head deeply punctured, the punctures nearly coalescing on the clypeal part, but less closely set in the frontal, the clypeal and frontal suture are not well defined, the clypeus is very strongly and sharply bi-dentate laterally, these teeth consist of the sharply aculeate lateral margin and of the very sharp and somewhat divaricating outer angle, and has also a median tooth in the centre of the apical margin as sharp and as recurved as the lateral ones, continued as a longitudinal keel in the extreme anterior part; prothorax punctulate, the punctures separated by a space equal to the diameter of each puncture; scutellum closely punctulate; elytra short, as broad as long, somewhat depressed, deeply striate, intervals plane and deeply punctured; pygidium with deep, somewhat broad punctures separated by an interval equal to their diameter; abdominal segments and pectus deeply and somewhat broadly punctured, especially the later; anterior and posterior keels of the eyes coming very close to each other; anterior tibiæ plainly tri-dentate outwardly.

Length 4½–5½ mm.; width 3½–4 mm.

Hab. Mozambique (Rikatla); Southern Rhodesia (Enkeldoorn, Sebakwe, Salisbury, Manica); Ovampoland (Evari River, Omrramba); Natal (Durban).

? Microtrachelus xanthocerus, Burm.,
Handb. d. Entomol., iv., 2, p. 162.

"Ovate, black, not very sericeous, bronze, strongly punctate; antennæ testaceous, 4-jointed. ♂.

Length 2½ lin.

Ovate, moderately convex, black; head very broad behind, much narrowed in front, without raised keel between frons and clypeus, anterior part only one-third as broad as the head between the eyes, sharply angular with a concavity on each side; elytra more remotely punctured (than in *Ablaberoides atratus*), distinctly striated, and with a coppery sheen; under side and legs more shiny and with bronze-green iridescence; tarsi brown; antennæ testaceous-yellow with a tolerably long 4-jointed club (anterior tibiæ tri-dentate).

Hab. Port Natal, collected by Drège."

Owing to the antennal club being 4-jointed, Burmeister considered his example to be a male. But in the type of *Microtrachelus* the antennal club is 5-jointed and longer than the pedicel in the male, and 4-jointed and as long as the pedicel in the female. It is therefore not improbable that this species belongs to *Microtrachelus*.

Gen. ABLABEROIDES, Blanch.,

Catal. Coll. Entom., 1850, p. 102.

Sphærotrachelus, Brensk., Berl. Ent. Zeit., 1900, p. 82.
Trochaloserica, Brensk., loc. cit., p. 82.

Mentum nearly similar to that of *Trochalus*, but usually wider at the base; palpi identical, maxillæ with three superposed teeth, the two lower ones bifid; clypeus always more or less narrowly constricted laterally in front, as well as sinuate between the genal projection and the constricted part, the anterior margin is strongly reflexed, and in the majority of species its median part is very strongly dentate, in which case the tooth is continued as a longitudinal keel dividing the strongly depressed anterior part into two, or it is merely angular, in that case the anterior part is not hollowed, there is a clypeal keel which is seldom indistinct, and a frontal grooved suture, which, however, turns into a short keel in a few species; the eyes are almost completely closed (*Ablaberoides*) or the hind keel does not coalesce with the genal canthus, but is always developed (*Trochaloserica*); the antennæ are 10-jointed with the club tri-jointed and very long in the male (*Ablaberoides*), or 9-jointed (*Sphærotrachelus*); prothorax short, strongly transverse, fringed with long setæ; scutellum large; elytra short, sub-parallel or ampliato-ovate, in which case they are more convex than when sub-parallel, punctate, striate or non-striate with the exception of the juxta-sutural stria which is always plainly visible; pygidium moderately convex; pro- and meso-sternum hairy; anterior tibiæ bi- or tri-dentate, legs of *Trochalus* but with the anterior trochanters not so strongly dilated.

The characters assigned by Brenske to his genus *Sphærotrochalus* agree very well with those of *Ablaberoides*, of which I have seen the type, except that the antennæ are 10- instead of 9-jointed, and *Trochaloserica*, also one of Brenske's genera would seem to differ mainly in both eye-keels not being in contact. After careful examination I came to the conclusion that completely or incompletely closed eye-keels did not coincide with 10- or 9-jointed antennæ, and that these characters can be made use of merely to group the species, not to divide them into genera.

The characters distinguishing this genus from *Trochalus* are the presence of a strong, hind ocular keel which either unites in a straight line with the genal canthus or is not quite connected with it, in which case it is slightly higher than the genal keel, and the presence of a transverse clypeal keel edging the usually deeply depressed anterior part of the clypeus the lateral margins of which are always continued as far as the sharp apical angle instead of being produced into a more or less sinuate keel above the margin of the anterior part.

The uniformity in facies and the enormous variation in colour makes the study of the species a most difficult one, but the shape of the genital armature helps greatly in the identification ; these armatures are, however, so very complicated that it is difficult to give a good description of them, and I greatly regret that I could not have them figured ; the presence or absence of an additional antennal joint helps also in grouping species which but for that character would be hardly distinguishable. Cf. *A. ditissimus* and *A. pavoninus* with *A. crassus*, &c.

The distribution of species in South Africa is as wide as in the genus *Trochalus*.

Key to the Species.

A^2. Antennæ 10-jointed.

B^2. Hind ocular keel meeting the edge of the genal canthus.

a^2. Clypeal transverse keel not reaching the sides.

Antennal joints of male free, clypeal keel very short .. *æneus.*

a^1. Clypeal transverse keel reaching from side to side.

Clypeus strongly constricted laterally and tri-dentate.

b^2. Anterior tibiæ bi-dentate.

Elytra deeply striate on the dorsal part .. .. *ditissimus.*

Elytra slightly striate in the dorsal part .. .. .. *pavoninus.*

b^1. Anterior tibiæ tri-dentate.

Bronze-black, with the upper side fleshy red .. .. *crassus.*

Bronze-black, with a broad discoidal red band on each elytron .. .. *rufovittatus.*

B^1. Hind ocular keel not meeting quite the genal canthus.

a^2. Clypeus strongly constricted laterally and tri-dentate in front.

b^2. Frontal suture grooved.

Body shining, median part of prothorax sub-strigillate, striæ of elytra obliterated on the sides .. .. *emeritus.*

Body sub-opaque, median part of prothorax not strigillate, striæ of elytra distinctly striate on the sides.. .. *laetulus.*

b^1. Frontal suture keeled .. .. *fähraei.*

a^1. Clypeus constricted laterally, tri-dentate in front.

b^2. Frontal suture keeled.

Body very convex, ampliato-ovate ; elytra not distinctly striate .. .. *tardus.*

b^1. Frontal suture grooved.

Body elongato-ovate ; elytra distinctly striate .. .. *pauper.*

A^1. Antennæ 9-jointed.

B^2. Hind ocular keel meeting the edge of the genal canthus.

a^2. Body sub-parallel, not very convex.

Body short, massive.

Antennæ rufescent, outer joint of club moderately grooved in the male .. .. *cognatus.*

Antennal pedicel flavous, club black, with outer joint conspicuously grooved in the male .. .. *obtusus.*

a^1. Body elongated.

b^2. Anterior tibiæ tri-dentate.

c^2. Body not iridescent.

Antennæ rufescent ; body not iridescent, bronze without much sheen .. .. *namaquanus.*

Antennæ flavous ; body entirely testaceous-red .. .. *testaceus.*

Antennæ flavous ; elytra testaceous with the suture and the outer margins fuscous or uniformly dark chestnut .. .. *flavipennis.*

c^1. Body iridescent.

Antennæ rufescent, club fuscous ; elytra infuscate laterally and behind .. .. *quæsitus.*

b^1. Anterior tibiæ bi-dentate.

Body testaceous ; elytra with an outer marginal infuscate band .. .. *tenellus.*

B^1. Hind ocular keel not meeting the edge of the genal canthus.

a^2. Body elongated.

Antennæ flavous .. .. *decedens.*

a^1. Body ovate, convex, short.

Antennæ black, with the four joints of the pedicel red *breviusculus.*

Antennæ ferruginous, with the club slightly fuscous in the male .. .. *ominosus.*

ABLABEROIDES ÆNEUS, Blanch.,

Cat. Coll. Ent., 1850, p. 102.

Trochalus longicornis, Burm., Handb. d. Entomol., iv., 2, p. 162.

Oblongo-ovate, convex, dark bronze, lighter on the head and prothorax than on the elytra, palpi and tarsi somewhat rufescent; antennæ piceous, with the four ultimate joints of the pedicel subrufescent, club of the male more than twice the length of the pedicel the joints of which are free; clypeus strongly constricted laterally and with a strong sinuation between the genæ and the constricted part, the anterior margin is straight with the outer angles sharp but not dentate, the centre, however, is plainly dentate, the dentate part forming a carinule which divides the anterior part into two depressions as far as the clypeal keel which is somewhat short, the frontal suture is quite plain, not arcuate, the genæ are strongly developed, and meet the hind keel of the eyes, and the whole surface is very deeply and closely punctate; prothorax twice as broad as long, bi-sinuate in front and behind, very slightly attenuated laterally towards the apical part the carinate margin of which has a fringe of not closely set bristles, it is covered with somewhat deep punctures separated by a smooth space slightly narrower than their own diameter; scutellum ogival, sparingly punctate; elytra about twice the length of the prothorax, somewhat convex in the anterior part, and having four very plain dorsal striæ on each side, the outer striæ are obliterated, and the surface is covered with deep, somewhat coarse punctures; pygidium somewhat convex, closely and deeply punctate; under side very deeply punctate; the metasternum with a few short hairs; hind coxæ with a few lateral bristle-like hairs similar to those edging the margin of the elytra, femora and anterior coxæ hairy; anterior tibiæ tridentate but with the basal outer tooth much smaller than the others, although distinct; anterior tarsi shorter than the intermediate or posterior ones, the basal one of the latter is as long as the one following, and shorter than the apical spur, the broadly dilated and somewhat short hind tibiæ are strongly spinose inwardly, and the hind coxæ have a nearly straight posterior margin; abdominal segments with one row of briefly setigerous punctures.

In the male the tubular part of the armature is deeply, roundly

notched, the inner forcipate process is spatulate, and the outer slender.

The description of *T. longicornis*, Burm., agrees very well with that of *A. æneus*, except that the elytra have no perceptible striæ, but they are not perfectly even.

Length $4\frac{1}{4}$–5 mm.; width $2\frac{3}{4}$–3 mm.

Hab. Cape Colony (Cape Town, Stellenbosch).

Ablaberoides ditissimus, n. spec.

Body short, massive, convex, but with the elytra not very much rounded laterally behind; bronze-black, with the elytra somewhat redder and with a strong opaline sheen, head and prothorax somewhat opaque; antennæ with the club slightly infuscate and the terminal joints of the pedicel pale flavous, club not longer than the pedicel in the male, with the two last joints plainly aculeate, the other three are somewhat fused; clypeus plainly tri-dentate in front and with the angle of the lateral sinuations often very sharp, clypeal keel very plain but not reaching quite the sides, the whole surface is very roughly punctate, especially the part comprised between the keel and the suture; prothorax very much broader than long, plainly ampliated from the anterior part to past the median, very convex, closely punctured, sub-opaque and yet opaline under certain light, the long lateral hairs are light fulvous; scutellum punctate; elytra convex in the anterior part, slightly ampliated laterally and having each five very distinct striæ and another but less plain one in addition, the intervals and the sides are coarsely punctate, the subdued sheen is purplish; under side as in *A. æneus;* the forcipate clasps of the male armature are very short, symmetrical, and in the shape of callipers.

Length 7–$7\frac{1}{4}$ mm.; width 5 mm.

Hab. Natal (Newcastle), Transvaal (Boksburg, Lydenburg), Orange River Colony (Bothaville), Southern Rhodesia (Upper Limpopo).

Ablaberoides pavoninus, n. spec.

Black, shining, with the elytra either brown or chestnut-brown and a conspicuous iridescent sheen all over, more noticeable, however, on the elytra on account of their great convexity; in general appearance it differs from *A. ditissimus* in not being so square owing to the elytra being much more rounded laterally behind and also more convex on the dorsal part; the pedicel of the antennæ is rufescent, and the club, which in the male is slightly longer than

the whole pedicel, is black; the clypeus is tri-dentate in front, but the angle of the lateral sinuation is rounded, the clypeal keel reaches the sides; the shape of the prothorax is the same as in *A. ditissimus*, but the punctuation of that part and also of the head is neither so deep nor so rugose; the sharply ogival scutellum is also sparingly punctured; the elytra have only three, or at most four, plain striæ, and the punctuation of the intervals, as well as of the sides, is deep, but not as much as in *A. ditissimus*, and the under side is alike, but the anterior tibiæ are bi- instead of tri-dentate outwardly; in the male the tubular part of the armature is notched in the centre and on each side, and the two forcipate processes are symmetrical, long, slender, and curve upwards at the tip.

Length 7–8 mm.; width 5–5¼ mm.

Hab. Mozambique (Rikatla).

ABLABEROIDES CRASSUS, Fähr.,

Insect. Caffr., ii., p. 134.

Serica interpunctata, Bohem., Vet. Ak. Förh., 1860, p. 115.

Trochalus moerens, Péring., Trans. S. Afric. Philos. Soc., vol. vi., 1892, p. 33.

,, *moestus*, Péring., loc. cit., p. 34.

,, *plagiatus*, Péring., loc. cit., p. 34.

,, var. *vagans*, Péring., loc. cit., p. 34.

Very dark bronze with a moderate sheen (*T. crassus*, *T. moerens*, *T. moestus*), or with the elytra bronze-red and a bright sheen (*T. interpunctatus*), completely reddish on the upper side (*T. vagans*), or lastly with a fuscous, longitudinal patch on each elytron (*T. plagiatus*); pedicel of antennæ rufescent, the club, which in the male is slightly longer than the pedicel, is black or darkly infuscate; it is a little more parallel than *A. pavoninus* and plainly less convex, but the shape of the head and prothorax, and also the sculpture, are as in *A. pavoninus*, while in general appearance it more resembles *A. ditissimus*, but it is not quite so massive; the elytra have the four dorsal striæ very distinct, but the sides are also fairly distinctly striate; the anterior tibiæ are tridenta', and the under side is similar to that of the other species above mentioned, but the shape of the genital armature is very different, the forcipate processes cross each other at about half the length, the left one is slender and cylindrical, the other thickly spatulate at the apex.

Length 6–7¼ mm.; width 4–4½ mm.

Hab. Southern Rhodesia (Victoria Falls), Ovampoland.

A most variable species, not only in colouring, but also in the general appearance, which is either sub-parallel or more or less convex; the female is, however, less parallel than the male.

ABLABEROIDES RUFOVITTATUS, Péring.,

Trans. S. Afric. Philos. Soc., vol. vi., 1892, p. 33.

The description of *A. crassus* applies in its entirety to the present species, which, is, however, constantly smaller, the colouration of the elytra seems to be also constant, they are dark bronze with a rufo-testaceous broad band extending over half the width of the elytra, and beginning at about the third dorsal stria; the anterior tibiæ are also tri-dentate outwardly. In spite of its great likeness to *A. crassus*, the difference in the shape of the genital armature is very great; the forcipate processes are symmetrical, very short, and bent downwards.

Length 5–5½ mm.; width 3½–3¾ mm.

Hab. Ovampoland.

ABLABEROIDES EMERITUS, n. spec.

Body almost spherical, dark bronze, shining, but without an opaline sheen; antennæ ferruginous; clypeus sharply tri-dentate in front, somewhat roughly punctured, frontal part of the head less roughly punctate than the clypeus, and with a basal broadly triangular smooth space; prothorax very short and very broad, covered with minute punctures separated by very narrow smooth intervals which are sub-strigillate in the median part; scutellum closely punctate; elytra plainly ampliated laterally in the centre, very convex, very faintly quadri-striate in the dorsal part, and not at all on the sides, and with the intervals and sides finely and not deeply punctate; anterior tibiæ bi-dentate; basal tarsal joint much shorter than the second; the genital armature of the male consists of a symmetrical tube the downward opening of which is hidden by a broad, spatulate operculum-like valve which covers also a moderately wide, forceps-like clasp.

Length 5½–6½ mm.; width 4–4½ mm.

Hab. Southern Rhodesia (Enkeldoorn, Salisbury, Sebakwe).

ABLABEROIDES LAETULUS, n. spec.

Bronze-black, sub-opaque, and yet with an iridescent sheen, antennæ flavescent, legs ferruginous; body ovate; this species differs from *A. æneus*, which it resembles by the presence of a

sutural groove instead of a raised line in the frontal part; it is not so spherical as *A. emeritus*, which is really its nearest ally, and from which it is also distinguished by the punctuation of the prothorax which is not so closely set, and by the deeply striate dorsal part which plainly numbers six striæ on each side; the anterior tibiæ are also bi-dentate outwardly. If the genital armatures, which are on the same plan, of the two species are compared, it is seen that the tubular part is much more deeply notched and twists inwardly on the left side in *A. laetulus*, the right process is sub-horizontal and does not therefore act as an operculum, the inner forcipate process is very short, and the apical part of the tubular part is flattened into two small processes.

Length $5\frac{1}{2}$–$6\frac{1}{2}$ mm.; width 4–$4\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Salisbury).

Ablaberoides fahræi, Pér.

Trochalus æneus, Fähr., Insect. Caffr., ii., p. 131.

Ovate, reddish-bronze, with the elytra often greener, and with an opaline sheen, antennæ and palpi flavescent or rufescent, the club slightly longer than the pedicel in the male; the sharply tri-dentate clypeus is not as sinuate laterally as in *T. emeritus*, and the upper angle of the lateral constriction is very sharp; instead of a frontal suture there is a plainly raised line; the prothorax is of the same shape as that of *T. emeritus*, but the punctures, although equally fine, are not set quite so close to each other, and the intervals in the median dorsal part are not sub-strigillate; the elytra are more elongato-ovate and appear therefore less convex in proportion, in nearly all my examples the four dorsal striæ are distinct, and as often as not there are plain traces of a fifth and even a sixth; interior tibiæ bi-dentate outwardly; this species is easily recognised from its congeners by the presence of a raised line instead of a grooved suture at the junction of the clypeus with the frontal part, but the shape of the genital armature distinguishes it also readily, the two claspers being strongly twisted, spatulate at the tip with the upper one nearly erect, and the other curving upwards underneath.

Length $5\frac{3}{4}$–$6\frac{1}{2}$ mm.; width $3\frac{3}{5}$–$4\frac{1}{4}$ mm.

Fähræus, in his description of the species, says that the anterior tibiæ are tri-dentate, and that with the exception of the sutural stria which is impressed behind, the striæ are hardly visibly striate. My examples, compared with the type, are, however, as described here.

Hab. Ovampoland.

Fåhræus' original name, *T. æneus*, being preoccupied, must be changed into *T. fåhræi.*

Abblaberoides tardus, n. spec.

Testaceous-red, with a bright sub-metallic not iridescent sheen; antennæ flavescent; as spherical as *A. emeritus;* the clypeus has sharp outer angles which are not, however, plainly reflexed, and the median part is not dentate, the constricted part is narrow, and the sides above it strongly sinuate, the frontal suture is replaced by a fine raised line, and in the only example of this species which I have seen there is in addition to the faint frontal suture a slightly impressed, transverse line equi-distant from the frontal suture and from the base; the prothorax is closely and the elytra sparingly and weakly punctulate, the dorsal striæ, with the exception of the juxta-sutural one which is visible in the posterior part, are almost obliterated.

The raised line of the frontal part and the non-tri-dentate clypeus will help in distinguishing this species from *A. emeritus*, and the non-tri-dentate clypeus from *T. fåhræi*, which has also a raised frontal line, but which is not so spherical.

Length 5 mm.; width 4 mm.

Hab. Ovampoland.

Ablaberoides pauper, n. spec.

Brownish-red, very slightly iridescent, antennæ flavescent; body elongato-ovate; clypeus very briefly denticulate in the centre of the anterior margin and with the angles moderately sharp, but not strongly reflexed, the constricted part is moderately narrow, and there is a plain frontal grooved suture with the edges slightly raised; the prothorax is of the normal shape, faintly punctulate in the median part, but more distinctly on the sides, the scutellum is long and very sharp; the elongato-ovate elytra have seven plainly visible striæ and the intervals are almost impunctate; the pygidium is sparsely punctate.

Length $5\frac{3}{4}$–6 mm.; width $3\frac{1}{2}$ mm.

Hab. Ovampoland.

Ablaberoides cognatus, n. spec.

Very dark bronze, almost black, with the elytra somewhat dark brown, sub-opaque and only very faintly iridescent; antennæ

rufescent, 9-jointed, club not quite as long as the pedicel in the male; body sub-parallel and only moderately convex; clypeus sharply tri-dentate in front, sinuate laterally, the clypeal keel is distinct and the anterior part divided into two depressions by the keel-like continuation of the median tooth, the frontal suture is fairly visible in some examples, or nearly obliterated in others, the anterior part of the head is scrobiculate, almost granulose, the posterior very deeply punctured; the prothorax is short, more than twice broader than long, ampliated gradually from the apical angle to a short distance from the base, and rounded thence, strongly sloping and covered with deep, fine, sub-contiguous punctures; elytra as broad at the base as the base of the prothorax, nearly straight laterally and rounded only in the posterior part, moderately convex in the anterior and having on each side five or six deep dorsal striæ, and occasionally two lateral ones, and covered with deep, somewhat coarse striæ; pygidium convex, deeply punctate, the punctures separated by an interval about equal to their own diameter; legs and under side normal, anterior tibiæ plainly tri-dentate.

Length 6½ mm.; width 4½ mm.

Hab. Transvaal (Zoutpansberg District), Southern Rhodesia (Sebakwe).

In the male the two forcipate processes of the genital armature are very short.

ABLABEROIDES OBTUSUS, Fähr.,

Insect. Caffr., ii., p. 128.

Black, sub-opaque, with a metallic sheen, or with the elytra chestnut-red with the suture and a broad marginal outer band deeply infuscate; in the totally black examples the elytra are slightly iridescent; basal joint of the pedicel and club black, the other joints rufescent, the club in the male is slightly longer than the whole pedicel, and the outer joint is so deeply grooved from base to apex that, when partially folded, the club seems to be quadri-articulate; body short and massive like *A. crassus* or *A. pavoninus;* the clypeus is sharply tri-dentate, the punctuation on the prothorax is moderately closely set and partly hidden in well-preserved specimens; the elytra have generally five plain dorsal striæ on each side; in the male the lower part of the genital armature is bifid and vertical, the right valve being slightly longer than the left, and the forcipate processes long and slender; anterior tibiæ tri-dentate.

Length 6½–7 mm.; width 4½–5 mm.

Evidently allied to *A. cognatus*, but more massive; the genital armature differs, although it belongs to the same type, and in *A. cognatus* the club of the male is not so conspicuously grooved.

Hab. Natal (Durban); Transvaal (Lydenburg, Rustenburg, ? Johannesburg); Southern Rhodesia (Buluwayo, Sebakwe).

Ablaberoides namaquanus, n. spec.

Very dark bronze, nearly black underneath, and very dark brown on the elytra, antennæ wholly flavescent; body very elongated; the appearance is more that of an *Ablabera* than that of a *Trochalus;* clypeus narrow, sharply tri-dentate; prothorax deeply and very closely punctured; scutellum very closely punctate; elytra elongated, sub-parallel, not much convex, plainly, yet not deeply striate on the dorsal part, the striæ numbering five or six on each side, the intervals and sides are deeply and somewhat closely punctate; the legs are piceous-red, and the anterior tibiæ tri-dentate outwardly; in the male the valve of the genital armature is vertical and rounded at the apex, and the two forcipate processes slender, symmetrical, strongly curved upwards, sub-horizontal at apex, and altogether different from that of any of the other species.

Length 7 mm.; width 4 mm.

Hab. Cape Colony (Namaqualand).

Ablaberoides testaceus, Fähr.

Ablabera testacea, Insect. Caffr., ii., p. 114.

Head and prothorax testaceous-red, elytra and under side flavescent, no metallic sheen, antennæ wholly yellow, club longer than the pedicel; clypeus narrow in front, plainly tri-dentate; head, prothorax, and scutellum deeply punctate; elytra elongated, sub-parallel, not convex in the anterior part, and having on each side five or six striæ with the intervals slightly costate near the basal part and moderately deeply punctate; posterior coxæ entirely hairless along the outer margin; anterior tibiæ tri-dentate outwardly; posterior ones broad, but only moderately ampliated inwardly.

I have not been able to examine the genital armature of the male of this species which very closely resembles *A. flavipennis* and *A. tenellus*.

Length 5–6 mm.; width $2\frac{3}{4}$–$3\frac{1}{2}$ mm.

Hab. Transvaal (Lydenburg), Southern Rhodesia (Salisbury, Sebakwe).

Ablaberoides tenellus, Fähr.

Triodonta tenella, Insect. Caffr., ii., p. 135.
Trochalus pallidipennis, Fähr., loc. cit., p. 135.

Hardly different from *A. testaceus*, except that the anterior tibiæ are bi- instead of tri-dentate outwardly; the elytra have a more or less distinct, infuscate outer marginal band, and in examples from Port Natal the prothorax has, according to Fähræus, an apical sub-triangular æneous patch; the shape, sculpture, and striation of elytra are exactly as in *A. testaceus*, and the antennæ are also flavous.

I have seen one example only of this species in addition to Fähræus' type, which is recorded from Port Natal, while my co-type is from Ovampoland.

Ablaberoides flavipennis, Fähr.

Ablabera flavipennis, Insect. Caffr., ii., p. 120.

This species is also so closely allied to *A. tenellus* and *A. testaceus* that they can be distinguished only with difficulty, and all three might prove to be one species only; the colour, however, differs in being dark bronze with the elytra testaceous-red but retaining a black suture and an outer marginal infuscate band, or being uniformly dark chestnut-brown; I have also seen examples with the elytra uniformly testaceous-red, and also entirely black with a faint metallic sheen; it resembles in general appearance *Camenta variabilis*, and Fähræus described it as an *Ablabera;* it has no opaline sheen, the clypeal keel is highly raised, and the frontal suture deep.

In the male the genital armature has two long, forcipate processes, the right one is longer and much more slender than the left and is spatulate at apex, the left one is wide with the tip acuminate.

Length $4\frac{1}{4}$–$5\frac{1}{2}$ mm.

Hab. Natal (Estcourt); Bechuanaland (Kanye); Southern Rhodesia (Salisbury, Enkeldoorn, Buluwayo); Transvaal (Zoutpansberg).

Ablaberoides quæsitus, n. spec.

Dark bronze, elytra light flavescent with the posterior part and the lateral margin infuscate, shining and sub-opaline especially on the elytra; antennæ with the two basal joints and the antennal club fuscous, the remainder of the pedicel is rufescent; it is less elongate than the three preceding species, and the elytra are plainly ampliated towards the posterior part; the legs are reddish, the clypeus very

sharply tri-dentate; the prothorax deeply and not very closely punctate, the elytra plainly striate in the dorsal part, and less so on the sides, and the intervals roughly punctate; hind tibiæ broad, but only moderately ampliated inwardly; the clypeus is narrow in front and sharply tri-dentate; the frontal transverse suture is well defined.

Male unknown.

Length $4\frac{3}{4}$ mm.; width 3 mm.

Hab. Transvaal (Rustenburg District).

ABLABEROIDES DECEDENS, n. spec.

Elongato-ovate, shining, hardly iridescent, chestnut-brown with the elytra and legs lighter brown, antennæ flavous; clypeus with the anterior part narrow, sharply tri-dentate and with the outer margin strongly sinuate, there is a very plain solution of continuity between the posterior eye-keel and the genal canthus, and the frontal, transverse suture is almost obliterated in the three examples examined by me; prothorax closely punctate; elytra with four or five plain dorsal striæ, intervals closely punctate; the forcipate processes of the genital armature of the male are symmetrical, very long, sub-horizontal, broadly spatulate at apex, and not unlike, although not contorted, those of *A. namaquanus*.

Length $5\frac{1}{2}$–6 mm.; width $3\frac{1}{2}$–$3\frac{3}{4}$ mm.

Hab. Natal (Durban).

ABLABEROIDES OMINOSUS, n. spec.

Body short, convex, black with a metallic tinge, or dark bronze, occasionally faintly iridescent, elytra and legs testaceous-red or dark chestnut, with a broad fuscous outer marginal band; antennæ rufescent with the club fuscous; clypeus with a small median tooth in the anterior margin the angles of which are sharp but not much curved, the anterior part owing to the anterior margin not being strongly reflexed is thus somewhat shallow, the frontal suture is very plain, the clypeal part between the keel and the suture is extremely closely punctate, the punctures on the frontal part are deep but not so closely set; prothorax very deeply punctate, the punctures equi-distant and separated by an interval slightly narrower than their diameter; scutellum somewhat short and broad, deeply punctate; elytra short, convex, plainly striate in the dorsal part only, and deeply and somewhat regularly punctate; the genital armature of the male, which is of the same type as in *A. namaquanus*, and *A. decedens*, has two

long, slender forcipate processes, the right one is spatulate at the tip, the other is acuminate. This species differs from *A. breviusculus* in the shape of the genital armature and in the colour of the antennæ.

Length 5–5¾; width 3½ mm.

Hab. Cape Colony (Mossel Bay); Natal (Durban).

ABLABEROIDES BREVIUSCULUS, Fähr.,

Insect. Caffr., ii., p. 134.

Body very short, somewhat massive, very dark bronze, iridescent, legs piceous, antennæ dark fuscous with the exception of the intermediate joints of the pedicel which are rufescent; clypeus dentate in the middle of the anterior margin, the tooth continued in a conspicuous longitudinal keel, outer angles sharp, but not dentate, frontal suture somewhat indistinct; clypeal part between the anterior keel and the frontal suture more roughly punctate than the frontal; prothorax deeply and evenly punctate; scutellum moderately long, strongly punctate; elytra short, not ampliated laterally, deeply quadri-striate on the dorsal part, the lateral striæ are either very faint or partly distinct; the genital armature of the male resembles very much that of *A. ominosus*, but the two forcipate processes which are also long and slender, are spatulate at the tip, thus resembling those of *A. decedens*, which are, however, longer and bent to the right side.

Length 5–5½ mm; width 3¾–4 mm.

Hab. Natal (Frere); Mozambique (Lourenço-Marquez); Southern Rhodesia (Enkeldoorn).

(*Species which I have not seen or been able to identify.*)

TRIODONTA LINEOLATA, Brancs.,

Jahr. Ver. Trencs., xvi., p. 113, 1897.

"Ovate, rufo-testaceous, closely punctate, pubescent, the pubescence slightly ochraceous and greyish; head triangular, clypeus truncate and slightly emarginate in front, without denticule, impressed on each side, and with the margin reflexed; antennæ testaceous; prothorax nearly twice as broad as long, roundly narrowed in front, anterior margin broadly and at the same time slightly emarginate, posterior one slightly bi-sinuate, with the angles straight, the anterior ones acuminate, dorsal part piceous, with the sides undefinitely fuscous; elytra distinctly striate with the suture and the intervals 2–4 more raised, clothed with

a somewhat lighter pubescence, rufo-testaceous on the dorsal part, fuscous on the sides, they are not twice the length of the prothorax, are little ampliated past the middle, and obtusely rounded at apex; scutellum triangular, elongate; pygidium broadly triangular, rounded at apex and with a longer pubescence; pectus and abdomen convex, sternum slightly sulcate longitudinally in the centre; legs red, clothed with a greyish ochraceous pubescence; femora closely punctate; anterior legs not strong, posterior tibiæ and femora dilated, compressed, anterior tibiæ tri-dentate, posterior ones spinulose.

Length 5·5–6 mm.; width 3·5–4 mm.

Hab. Boroma, on the Zambesi River."

Perhaps identical with my *Euronycha sebakuana.*

TRIODONTA BOROMENSIS, Brancs.,

Loc. cit., p. 114, pl. iv., fig. 5.

"Elongated, rufo-testaceous, closely punctate,clothed all over with a thin greyish-ochraceous pubescence, margin of the thorax and elytra ciliate; head sub-triangular, clypeus emarginate in front, impressed on each side, margin reflexed, eyes not prominent, antennæ testaceous; prothorax transverse one and a half wider than long, very broad at the base, plainly narrowed, anterior margin broadly emarginate, posterior roundly produced in the middle, impressed as a sinus after the scutellum; elytra twice the length of the thorax and little wider, very slightly ampliated past the middle, sub-truncate at apex, obsoletely striate, the sutural stria deeper than the others; scutellum triangular; pygidium broadly triangular, convex, rounded at apex; pectus and abdomen convex, sternum with an almost obliterated longitudinal sulcus; legs red, femora closely punctate, anterior ones simple, posterior dilated; anterior strongly tri-dentate, median and posterior spinulose outwardly, and with long hairs internally.

Length 6·5–7·5 mm.; width 4–4·3 mm.

Hab. Boroma, on the Zambesi River."

SERICA ZAMBESINA, Brancs.,

Loc. cit., p. 112.

"Brownish, opaque, ovate; clypeus roughly and sub-rugosely, frontal part sparsely and finely punctate, slightly carinulate in the centre; clypeus separated from the frons by a raised line, very slightly sinuate in front, and having the margins slightly reflexed; antennæ testaceous; prothorax transverse, twice as broad as long,

densely but not deeply punctate, very broad behind, plainly narrowed towards the apex and slightly bi-sinuate behind, sides ciliate, posterior angles obtuse, not sharp; scutellum long, shaped as a triangle rounded at apex, and roughly punctate ; elytra little wider than the prothorax, convex, and twice and a half its length, somewhat ampliated towards the apex, broadly rounded together and declivous there, obsoletely striate and densely punctate, lateral margin ciliate; anterior tibiæ obtusely tri-dentate ; pectus shining, densely punctate ; abdominal segments more roughly punctate transversely in the middle; pygidium convex, moderately shining, triangular, with the angles rounded, and distinctly densely punctate.

Length 5–6 mm. ; width 3–4 mm.

Hab. Boroma, on the Zambesi River."

Herr Brenske identified my *Autoserica concordans* with *S. zambesina*, Brancs., but I think that it is a mistake.

Serica carbonaria, Burm.,

Handb. d. Entomol., iv., 2, p. 167.

" Antennæ 10-jointed, body in general shorter and more spherical, mesosternum broader, coxæ considerably remote (*Omalopia*) Muls.

Intensely black, and with a pearly sheen; elytra completely opaque, striate, clypeus shiny.

Length $2\frac{3}{4}$ lin.

Short and compact, uniformly black, under side and pronotum with a bright pearly glance, finely punctured ; clypeus shiny, densely punctured; elytra completely opaque, distinctly striate, finely punctate, in each puncture a grey, small puncture ; antennæ and legs shining black, the joints brown.

Hab. South Africa."

Serica robusta, Blanch.,

Catal. Coll. Ent., 1850, p. 79.

" Ovate, very thick, black, moderately shiny; head very wide, punctate ; clypeus coarctate, angular, carinate in the middle ; antennæ ferruginous, club black, a little shorter than the pedicel ; prothorax broad, convex, shiny, slightly punctate all over, and having some fulvous lateral hairs ; scutellum black, punctate ; elytra convex, striate, punctate all over; dark red, with a purplish sheen, suture and outer margin blackish ; legs piceous, posterior

ones strongly compressed; pectus and abdomen black, sparsely pilose, the hairs fulvous.

Length 8 mm.

Hab. Zululand."

Tribe ABLABERINI.

Body elongate, sub-cylindrical or with the elytra slightly ampliated in the posterior part, but occasionally short and convex, although less than in *Trochalus* (*Oocamenta*); clypeus gradually narrowed laterally and either straight or sinuate before the apex, but occasionally plainly constricted (*Idæcamenta*), eyes divided in front by a short genal canthus, and without any posterior keel; antennæ 9- or 10-jointed; prothorax not very convex and with a fringe of long setæ; elytra elongated and covering the propygidium which is wide and slightly convex; anterior coxæ sub-vertical and conical at apex, very little slanting in the base, intermediate and posterior ones not widely separated, the posterior slanting and only one-third the width of the metasternum the episterna of which are slightly narrower and of course longer than in the *Sericini*; femora not broadly ampliated, tibiæ not compressed, hind ones with only a slanting spinose ridge; hind spurs of the female visibly yet not strongly ampliated.

The variable number of antennal club joints has led to a great generic division where specific distinctions, would, in my opinion, have achieved the same result.

This great variation in the number of joints of the antennal club is a curious feature of the insects included in this Tribe; it varies in the male from 7 to 4, and from 6 to 3 in the female; the claws are slender and not deeply cleft underneath, but the basal part is often dilated and membranaceous.

On the whole the Tribe is very homogeneous, but certain genera, such as *Tulbaghia* and *Idæcamenta*, are closely allied to the Pachypodous *Melolonthinæ*, and have probably the same habits. The females of *Ablabera*, *Camenta*, &c., are, however, met with as commonly as the males.

The species of *Ablaberini* seem to be more restricted to the South African Fauna than the *Sericini;* a few of them have been met with as far as Masailand, but I believe that none are found in Senegambia. The range of the species in South Africa is very limited, differing in that respect from the *Sericini*, but the habits of the two seem to be the same.

Key to the Genera.

A⁴. Claws mostly slender, obliquely incised underneath at a short distance from the apex, not lobate in the posterior part.

*b*². Clypeus simple, divided from the head by a suture .. .. *Ablabera.*

*b*¹. Clypeus with a median keel or raised suture, and a frontal one .. .. *Microcamenta.*

*a*¹. Clypeus straight laterally, outer angles moderately rounded.

Frontal suture obliterated, reflexed anterior part edged by a fine transverse line .. .. *Leribe.*

A³. Claws not incised underneath, but slightly dilated at base.

*a*³. Clypeus with a median keel and a frontal one, and arcuately rounded in front.. .. .. *Tulbaghia.*

A². Claws with a very broad basal vertically truncate lobe underneath.

*a*². Clypeus with a supra-apical keel or raised line, and a frontal suture.

*b*². Clypeus not hollowed.

*c*³. Genæ not projecting; antennæ 10-jointed in both sexes .. *Camenta.*

*c*². Genæ not projecting; antennæ 9-jointed in the male .. *Pericamenta.*

*c*¹. Genæ distinctly projecting, antennæ 10-jointed in the male, 9-jointed in the female .. .. *Oocamenta.*

*a*¹. Clypeus with two strongly raised keels.

Genæ strongly developed, clypeus notched in front, not hollow .. .. *Diplotropis.*

*b*¹. Clypeus hollowed.

Clypeus with a median and a frontal suture or slightly raised line.

Genæ moderately developed, clypeus rounded in front, not notched .. .. *Paracamenta.*

A¹. Claws with a moderately broad basal lobe.

a. Clypeus with two high keels.

Clypeus deeply incised laterally and strongly narrowed in the anterior part .. .. *Idæcamenta.*

Gen. ABLABERA, Erichs.,

Nat. Ins., iii., 1847, p. 695.

Mentum ampliated laterally, deeply constricted there at the junction with the ligular part which is entirely fused, but bears a somewhat plain trace of a suture, narrowed thence, but expanding

towards the anterior part the angles of which are broadly rounded, and the anterior margin broadly arcuate, the outer face is very slightly convex in the median part, and the whole ligular part depressed; the labial palpi are inserted into a deep lateral condyle at some distance from the anterior angles, and the last joint is somewhat broadly fusiform at the base; jaws robust, and with a double row of three or four teeth set opposite each other in three tiers, the lower one being more or less distinctly trifid, these teeth are set at right angles to the inner edge of the maxillæ which are truncate at the tip with the outer angle sharp; last joint of maxillary palps flail-like, longer than all the joints taken together; antennæ 10-jointed with the club elongate and 5- or 6-jointed in the male according to the development of the last joint of the pedicel, or plainly 7-jointed; ovate and 5- or 6-jointed in the female, but with the last joint of the pedicel more or less sharply acuminate; clypeus narrowed laterally diagonally from the narrow canthus of the eyes towards the anterior angle which is never blunt, and is occasionally very sharp, and even projecting, and slightly emarginate laterally near the anterior part, or deeply sinuate; the anterior margin is more or less deeply sinuate, the margin itself being always reflexed, and when it is very highly raised there is a faintly impressed line along the narrow, seemingly depressed part, but there is no suture in the median part,* and the clypeal suture at the junction with the head is straight, in some species the anterior margin is bi-sinuate, and in one (*A. rufa*) there is a somewhat distinct, longitudinal keel in the middle of the anterior part; prothorax convex, almost twice as broad as long, ampliated laterally in the centre with the anterior angles sharp and the posterior rounded, fringed laterally by more or less dense hairs, and having also a few hairs along the outer part of the anterior margin; scutellum cordate or ogival; elytra somewhat ampliated and convex in the posterior part, or sub-cylindrical, without any distinct dorsal costules, and covering the rather broad propygidium; pygidium convex; abdominal segments divided by deep sutures, but seemingly fused, somewhat pubescent, pectus moderately pubescent; anterior tibiæ bi-dentate outwardly and having a very long inner spur which in some species curves conspicuously outwardly in the male (*A. amoena, fuscipennis*) but shows also a tendency to curving in the other species—in the female, however, this spur is straight; tarsi long, slender, claws more or less slender, divaricating, more or less plainly cleft diagonally but not deeply underneath in the anterior part; in some species only the inner claw of the anterior tarsi is cleft; posterior coxæ moderately robust, posterior tibiæ

* In *A. pilosula* there is, however, a faint, median, interrupted line.

robust, bi-incised on the upper edge and without oblique ridge, the apical spurs sharp in both sexes, but more sinuate in the female, in which sex the posterior tarsi are also shorter.

The species which I have been able to observe fly very low in the daytime, and are met with from August to April in the Western Provinces of the Cape Colony.

The genus might be divided into two sections (*Parablabera*, *Ablabera*), owing to the number of joints forming the antennal club, but it is sometimes difficult to decide if the last joint of the pedicel is a part of the club or not, owing to its being very often briefly laminate. This division is also very artificial, because *A. gratula*, for instance, with a 7-jointed club in the male has the same shape and colouring as the species belonging to the group in which the male has a 6-jointed antennal club.

The first section is mostly restricted to the Cape Colony, but it has one representative in the Transvaal. One species of the genus is recorded from German East Africa.

The character distinguishing this genus from *Microcamenta*, the claws of which are alike, is the absence of a median transverse ridge or clypeal suture in addition to the frontal one, and from *Camenta*, the shape of the claws which are not lobate or swollen underneath at the base.

Key to the Species.

A². Antennal club of male 5- or 6-, of female 5-jointed, the ultimate joint of the pedicel laminate but short in both sexes .. (*Parablabera.*)

*a.*² Antennal club of male 5-jointed.

Black, with the elytra partly testaceous, upper side clothed with long, greyish remote hairs; clypeus not impressed in front .. .. *hirsuta.*

Fuscous, with the elytra straw-colour, upper side densely pubescent, clypeus impressed in front, not longer than the head .. .. *pilosula.*

*a*¹. Antennal club of male 6-jointed.

Black, the elytra testaceous with a broad, black, marginal, basal and sutural band .. .. *splendida.*

*a*¹. The ultimate joint of the pedicel not laminate in the female.

Body black, glabrous on the upper side .. .. *hottentota.*

Straw-colour, with the prothorax fuscous, and a sutural and marginal fuscous elytral band; clypeus longer than the forehead; inner spur of anterior tibiæ of male strongly hooked.. .. .. *transvaalica.*

Black, with the elytra testaceous and glabrous, prothorax with a juxta-marginal band of hairs in the anterior part .. *hirticollis.*

A¹. Antennal club of male 7-jointed, that of the female 6-jointed.. (*Ablabera.*)

*a*³. Anterior angles of clypeus only moderately sharp.

*c*². Elytra with short, seriate hairs.

Body black, posterior part of elytra chestnut-brown; inner joint of antennal club of the male two-thirds shorter than the one following .. .. *capicola.*

*c*¹. Elytra glabrous.

Body black; inner joint of antennal club of the male half the length of the joint following .. .. *delalandei*

*b*². Elytra ampliato-convex.

Body black, elytra chestnut-brown .. .. *gravidula.*

Black, with the posterior part of the prothorax red, elytra straw-colour with a fuscous outer band .. .. *gratula.*

*b*¹. Elytra ampliate, not convex.

Chestnut-brown, with the head fuscous .. .. *modesta.*

*a*². Anterior angles of clypeus sharply produced outwards.

Clypeus of male deeply sinuate in the centre of anterior part; outer angles projecting; body rufo-testaceous; inner spur of anterior tibiæ hooked .. .. *amoena.*

Clypeus of male deeply sinuate in the centre, outer angles not projecting; body rufo-testaceous; inner spur of anterior tibiæ not hooked .. .. *matabelena.*

*a*¹. Outer angles of clypeus sharp, not produced outwardly, bi-sinuate in the anterior part.

Black, with the elytra chestnut-brown; inner spur of anterior tibiæ hooked in the male .. .. *namaqua.*

Ferruginous, inner spur of anterior tibiæ curved in the male .. .. *hopeiana.*

Light testaceous-red (male unknown) .. .. *rufa.*

ABLABERA SPLENDIDA, Fäbr.,

Spec. Ins., i., p. 41.

A. clypeata, Gyllenh., Schönh. Syn. Ins., i., 3, App., p. 70.
A. emarginaticeps, Blanch., Cat. Coll. Ent., 1850, p. 101.
A. lateralis, Wied. Germ. Mag., iv., p. 137.
A. luridipennis, Blanch., loc cit., p. 101.
A. notata, Wied. Germ. Mag., iv., p. 138.
A. totta, Thunb., Mém. Ac. Petr., vi., 1815, p. 428.

Black, elytra pale testaceous but with a broad basal black band, a sutural, and a lateral one varying somewhat in width, glabrous on

the upper side and fringed along the prothorax and the elytral margins with long but somewhat remote pallid bristles; the elytra are very convex and ampliated in the posterior part; in the male the clypeus is very strongly sinuate laterally in the anterior part, the anterior angles are sharp but do not project, and the anterior margin is plainly sinuate, the antennal club is infuscate with the three basal joints of the pedicel rufescent and is 6-jointed, but the inner joint is less than half the length of the one following; the club is 5-jointed, and the fifth joint of the pedicel is very briefly aculeate; head and prothorax very finely punctate, the clypeus is narrowly reflexed at the apex, and the apical impressed transverse line is plainly visible; prothorax ampliated laterally with the anterior angles very sharp, and the posterior ones much rounded, convex; elytra covered with equi-distant round punctures with smooth intervals and having no traces of dorsal costules, the suture itself is very little raised; pygidium often reddish or testaceous in the centre, legs piceous; abdominal segments and pectus moderately densely pubescent.

Length 6–7½ mm.; width 3–4½ mm.

Hab. Cape Colony (Cape Town, Stellenbosch, Worcester, Uitenhage, Graham's Town, Kowie, East London).

The colour of the elytra varies from straw-colour to rufescent.

ABLABERA HOTTENTOTA, n. spec.

Female: Shape and sculpture of *A. lateralis*, but slightly more elongated, entirely black and fringed laterally with somewhat remote greyish setæ, the shape of the clypeus is similar, the antennal club is 5-jointed (♀); in some examples there is a faint fulvous patch in the posterior part of the elytra, and a similar spot on the pygidium.

This species closely resembles *A. lalandei*, but is distinguished from it by the very slender, moderately divaricating claws; ♂ unknown, but having most likely 6-jointed antennæ.

Length 6 mm.; width 3½ mm.

Hab. Cape Colony (Clanwilliam).

ABLABERA HIRSUTA, Blanch.,
Cat. Coll. Ent., 1850, p. 102.

Black, with the elytra testaceous-red, broadly infuscate along the base, the suture and the sides, or fuscous with a broad reddish patch in the posterior discoidal part, very convex and conspicuously inflated laterally behind, covered on the prothorax and elytra with long, erect, remote greyish setæ, and having a fringe of conspicuously

long and dense setæ along the outer margins, antennal club of the male and female 5-jointed, the inner joint slightly shorter than the one following, last joint of pedicel more laminate in the male than in the female, clypeus sinuate in the anterior lateral part, deeply emarginate in the anterior, and with the surface plane; sculpture as in the preceding species.

Length 6–7 mm.; width $3\frac{1}{2}$–$4\frac{1}{4}$ mm.

Hab. Cape Colony (Cape Town, Stellenbosch, Paarl).

Ablabera transvaalica, n. spec.

Very light straw-colour, with the frontal part of the head from the frontal suture to the base fuscous, the prothorax is also fuscous black, except for a narrow, stramineous lateral margin, the scutellum is black and the elytra have a narrow sutural, and a supra-marginal slightly broader fuscous band; clypeus longer than the head, reflexed at the apex, only slightly sinuate laterally in the anterior part, anterior margin arcuate from angle to angle, the latter sharp, but not projecting outwardly; head and clypeus finely and closely punctate; prothorax convex, ampliated laterally past the median part, closely punctulate; elytra moderately elongated, slightly ampliated in the posterior part, covered with closely set and somewhat deep punctures, glabrous on the upper side; under side pubescent; antennal club of male 5-jointed, the inner joint shorter than the one following, fifth joint of pedicel very small, laminate; inner spur of anterior tibiæ of the male strongly hooked.

This species is distinguished from *A. hirsuta* and also from *A. pilosula* and *A. splendida*, by the much longer and straighter clypeus, and the strongly hooked inner spur of the anterior tibiæ of the male.

Length $6\frac{1}{2}$ mm.; width $3\frac{3}{4}$ mm.

Hab. Transvaal (Lydenburg).

Ablabera hirticollis, n. spec.

Female: Head and anterior part of the prothorax black, posterior part of prothorax reddish, elytra very pale testaceous with a more or less broad fuscous lateral band; pygidium and under side fuscous, legs partly piceous; clypeus not sinuate laterally in the anterior part, faintly sinuate in front with the angles moderately sharp but not projecting; antennal club 5-jointed with the inner joint half the length of the one following, the head and clypeus are somewhat deeply punctured; prothorax fringed laterally with long hairs and having a transverse fringe of similar hairs along but not on the anterior margin, as well as a few sub-appressed and shorter

ones scattered about the disk on well-preserved specimens; scutellum black, elytra sub-parallel, moderately convex behind, somewhat deeply punctate and having a faint trace of a dorsal costule, the suture is narrowly infuscate in some examples; in well-preserved examples there is a row of sub-appressed hairs on the clypeal suture, and also three or four hairs along the anterior depression.

Length $6\frac{1}{2}$–$9\frac{1}{2}$ mm.; width $3\frac{1}{2}$–$5\frac{1}{2}$ mm.

Hab. Cape Colony (? Worcester, Kowie).

I have seen an example of this species entirely black.

Ablabera pilosula, Fähr.,

Insect. Caffr., ii., p. 116.

A. pulicaria, Fähr., loc. cit., p. 121.

Head infuscate, prothorax reddish, elytra very pale testaceous, almost straw-colour, head and anterior part of clypeus briefly, prothorax densely pubescent, elytra with rows of moderately long, erect, sub-flavescent hairs, greyish along the margins; clypeus not sinuate laterally but deeply emarginate in front with the anterior part more deeply impressed than in the other species of *Ablabera* known to me, and with the impression edged by a very faint transverse suture in the manner of *Camenta;* elytra convex; sculpture normal; antennal club 5-jointed in both sexes.

Owing to the presence of a clypeal suture, which is, however, very faint, in addition to the frontal one, this species might be included in *Camenta*, but the shape of the claws is that of *Ablabera.*

Length $5\frac{1}{4}$ mm.; width 3 mm.

Hab. Cape Colony (Worcester, Stellenbosch, Cape Town).

I am not quite sure that this is the true *A. pilosula* of Fähræus.

Ablabera capicola, n. spec.

Head and prothorax black, elytra fuscous, or faintly chestnut-brown in the posterior part, under side infuscate, legs reddish, club of antennæ fuscous, the pedicel rufescent; head and prothorax glabrous, the latter, however, fringed with a dense, long fulvous pubescence; elytra with short, greyish erect hairs arranged in regular rows, and having along the margins a dense fringe of fulvous hairs; clypeus not sinuate laterally, arcuately emarginate in front, but with the outer angles slightly rounded in both the sexes; antennal club of male moderately long, 7-jointed, but with the inner joint less than half the length of the one following, which is also slightly shorter than the others, 6-jointed in the female, the inner

joint half the size of the following one; punctures on the head and prothorax fine, deeper and a little wider on the elytra.

Length 7–7½ mm.; width 4–4½ mm.

Hab. Cape Colony (Worcester, Clanwilliam).

ABLABERA LALANDEI, Blanch.,

Cat. Coll. Entom., 1850, p. 101.

Male: Black, glabrous on the upper side but fringed laterally with moderately dense greyish hairs; clypeus plainly sinuate laterally near the apex, and only slightly emarginate in front with the angles somewhat sharp, but not projecting; club of antennæ black, 7-jointed, the inner joint half the length of the one following, pedicel rufescent; punctures on the elytra slightly wider and deeper than those on the prothorax; anterior claws robust, strongly divaricating. This last character distinguishes the present species from *A. hottentota;* it is also slightly less convex in the posterior part.

Length 7 mm.; width 3½ mm.

Hab. Cape Colony (Paarl).

ABLABERA GRAVIDULA, n. spec.

Female: Shape of *A. splendida*, but of heavier build, and with the clypeus very slightly sinuate laterally towards the apex the outer angles of which are not sharp, the anterior margin is nearly straight; black, with the elytra and legs chestnut-red, the prothorax and elytra are fringed with a dense, long, fulvous pubescence, the inner joint of the 6-jointed antennal club is half the length of the one following, the head and prothorax are finely punctured, the punctures on the elytra are deeper and less closely set than on the prothorax; pectus with a very long but not very dense pubescence.

Length 9 mm.; width 5 mm.

Hab. Cape Colony (Cape Town).

ABLABERA GRATULA, n. spec.

Head and anterior part of prothorax black, the posterior is red, scutellum black, under side piceous, legs rufescent; elytra pale testaceous and having an outer marginal narrow, fuscous band, the pedicel of the antennæ is flavous in both sexes, the club infuscate; the clypeus is deeply sinuate in front with the margin plainly reflexed, distinctly sinuate laterally in the anterior part, and covered, like the head, with deep equi-distant punctures, the antennal club of the male is 7-jointed, the joints long and of equal length; the

prothorax is plainly convex, glabrous but with an outer fringe of long setæ; the elytra are glabrous, very plainly ampliated behind and convex there, as deeply punctate as the prothorax and without any traces of dorsal costules; the antennal club of the female is 6-jointed, the inner joint is only half the length of the following one.

Evidently allied to *A. hirticollis*, but more ampliated laterally behind, and without traces of villosity on the prothorax.

Length 7½–9 mm.; width 4–4¾ mm.

Hab. Cape Colony (Caledon, Clanwilliam).

Ablabera modesta, n. spec.

Female: Chestnut-brown, head fuscous, pedicel of antennæ flavous, antennal club black; clypeus deeply emarginate in front and distinctly sinuate laterally in the anterior part; moderately closely punctate; prothorax glabrous on the upper side, fringed with long, remote hairs laterally; elytra glabrous, much ampliated laterally behind, but not convex there, somewhat deeply punctate, and without any traces of dorsal costules.

Length 7 mm.; width 4 mm.

In general facies this species is not unlike *Camenta pusilla*.

Hab. Cape Colony (Clanwilliam).

Ablabera amoena, n. spec.

Clypeus and prothorax light brick-red, head fuscous, elytra and under side pale testaceous, almost straw-colour, antennæ flavous; clypeus deeply emarginate laterally in the anterior part, with the outer angles sharp and projecting in the male, and with the anterior margin very deeply sinuate, in the female the clypeus is a little shorter, more deeply incised laterally, less deeply sinuate in front, and with the anterior angles sharp, but not projecting; both head and clypeus are deeply punctured, and glabrous; prothorax convex, covered with equi-distant punctures, not closely set, and fringed laterally with a somewhat dense, greyish pubescence; scutellum impunctate; elytra elongated, sub-cylindrical, but slightly ampliated laterally in the female, covered with equi-distant punctures of the same size and depth as those of the prothorax, and without any traces of costules; abdomen and pectus pubescent, the outer margins have a fringe of very short hairs; tarsi long; inner spur of anterior tibiæ curving outwardly at apex.

Length 9–11 mm.; width 5–5½ mm.

Hab. Cape Colony (Clanwilliam); Natal (Umvoti).

In spite of the great distance separating the two recorded habitats of this species, the specimens are absolutely alike, and the genital armature similar.

ABLABERA MATABELENA, n. spec.

Closely allied in so far as the general facies goes, with *P. amoena*, but the colour is redder, the head is not infuscate, the clypeus is plainly sinuate laterally, the outer angles do not project in the male, and the anterior margin is only slightly sinuate, it thus resembles much the clypeus of the female of *P. amoena*, but it is sinuate only, not deeply incised laterally; the elytra have a faint trace of dorsal costule; the inner spur of the anterior tibiæ is straight, and the inner claw of the anterior tarsi is not cleft.

Length 9 mm.; width $4\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Buluwayo).

ABLABERA FUSCIPENNIS, Blanch.,

Cat. Coll. Ent., 1850, p. 101.

A. infuscata, Bl., loc. cit., p. 101.

Head, prothorax, and under side black, scutellum fuscous; elytra light or dark chestnut, pedicel of antennæ flavous, upper part of club infuscate in both sexes; clypeus more sharply narrowed laterally in the male than in the female, not incised or deeply sinuate in the anterior part, but with the outer angles sub-acuminate and slightly projecting outwardly, anterior margin almost straight, but with the median part very slightly projecting; in the female the clypeus is not deeply incised laterally near the anterior part, the angles are moderately sharp but not projecting, and the anterior margin is straight, both head and clypeus are very closely punctured; prothorax covered with round, equi-distant, somewhat deep and not very closely set punctures; scutellum punctate; elytra parallel in the male, slightly ampliated towards the posterior part in the female, deeply punctate, the punctures equi-distant as on the prothorax and of nearly the same size, dorsal costules very slightly indicated; inner spur of the anterior tibiæ strongly curved outwardly at tip in the male.

Length 8–9 mm.; width 4–5 mm.

Hab. Cape Colony (Namaqualand).

ABLABERA HOPEIANA, n. spec.

Totally chestnut-red, with the frontal part of the head slightly fuscous; pedicel of antennæ rufescent, club infuscate; clypeus as

long as the head, plainly narrowed laterally, incised there close to the apical margin which is strongly reflexed and the outer angles of which are sharp and somewhat projecting in the male, this apical margin is slightly bi-sinuate, owing to the median part being sub-aculeate, head and clypeus covered with somewhat deep, sub-contiguous punctures; prothorax of the normal shape, and with the normal punctures and lateral fringe of hairs; elytra sub-cylindrical, somewhat deeply punctured, and with the lateral fringe of hairs neither very long nor dense; inner spur of anterior tarsi of male gradually curved outwardly.

Length 6 mm.; width 3 mm.

Hab. Cape Colony (Hope Town).

ABLABERA RUFA, Fabric.,

Syst. Ent., p. 36.

Oliv. Ent., i., 5, p. 43, pl. vii., fig. 79.

Female: Somewhat rufescent, but with the elytra a little paler, fringed along the sides of the prothorax and elytra with a somewhat long, dense, flavescent pubescence, antennæ flavous; clypeus plainly emarginate laterally near the anterior part, deeply bi-sinuate in front with the angles fairly sharp but not projecting, and with the median part plainly angular, the anterior margin is very highly raised, and there is a slightly raised longitudinal median keel, hardly reaching the clypeal suture which, in some examples, is slightly keeled; prothorax and elytra normally punctate, the latter without any traces of dorsal costules.

Length 7½–9 mm.; width 4–5 mm.

Hab. Cape Colony (Cape Town).

(*Species which I have not been able to identify*).

ABLABERA RUFIPES, Blanch.,

Catal. Coll. Ent., 1850, p. 101.

"Narrow, black, clothed with ashy-grey hairs underneath; head punctate, clypeus broadly reflexed with the angles prominent; antennæ and palpi testaceous, club fuscous; prothorax closely punctate, and with the sides ciliate; elytra oblong, black, roughly punctate; legs testaceous; abdomen black, slightly pilose.

Length 8 mm.

Collected by Delalande."

I have unfortunately mislaid my notes on the examination of

Blanchard's types, and I am therefore not certain that this species is a valid one.

ABLABERA ADVENA, Gyllh., Schönh. Syn. Ins., i., 3, App., p. 100. C. B. S.

ABLABERA ANALIS, Thunb., Mém. Ac. Petr., vi., 1818, p. 427. C. B. S.

ABLABERA APICALIS, Fähr., Insect. Caffr., ii., 117. Orange River.

ABLABERA LUTARIA, Har., Col. Heft., v., 1869.

A. LURIDIPENNIS, Burm., Handb., iv., 2, p. 141. C. B. S.

ABLABERA NANA, Gyllh., Schönh. Syn. Ins., i., 3, App., p. 72. C. B. S.

ABLABERA PELLUCIDA, Burm., Handb. d. Entom., iv., 2, p. 140. C. B. S.

ABLABERA ROSTRATA, Burm., Handb. d. Entom., iv., 2, p. 138. Caffraria.

ABLABERA SIMILATA, Burm., Handb. d. Entom., iv., 2, p. 140. C. B. S.

ABLABERA TENEBROSA, Burm., Handb. d. Entom., iv., 2, p. 142. Caffraria.

ABLABERA VIDUA, Burm., Handb. d. Entom., iv., 2, p. 142. Caffraria.

It is most probable that on comparison with the types, all these species will be found to have been described in this Catalogue, under a different name, and that several of them will prove to be synonymous.

MICROCAMENTA, Brensk.,

Stett. Ent. Zeit., 1898, p. 346.

Facies and buccal organs of *Ablabera* and *Camenta;* antennæ 10-jointed, the club 7-jointed in the male, 6-jointed in the female: clypeus deeply emarginate laterally with the anterior part strongly reflexed and with a median, transverse, more or less raised suture, and a plain clypeal one, genæ strongly developed, oblique; the claws have a plain, small curved tooth underneath instead of being finely cleft.

The characters distinguishing this genus from some species of *Ablabera* are the presence of two parallel arcuate keels or sutures on the clypeus, and the strong development of the genæ.

Key to the Species.

A3. Anterior margin of clypeus straight.

Black; clypeus in the male with two plainly raised keels; inner spur of anterior tibiæ straight .. .. *transvaalensis.*

A². Anterior margin of clypeus broadly emarginate.
Pale testaceous; clypeus in the male with a sub-median suture and a slightly raised keel; apex of anterior tibiæ slightly curved outwardly .. .. *sebakuensis.*

A¹. Anterior margin of clypeus angular in the centre.
Straw-colour, the two raised sutures on the clypeus not very high .. .. *ovampoensis.*

MICROCAMENTA TRANSVAALENSIS, Brensk.,
Stett. Ent. Zeit., 1898, p. 346.

Male: Piceous, elytra very dark chestnut-brown, antennæ chestnut-brown; head and clypeus deeply and somewhat closely punctured, the latter is deeply emarginate laterally in the anterior part with the upper angle of the emargination not sharp, the anterior part is straight and strongly reflexed, the reflexed part being bounded by a plainly impressed transverse line, and above the median part there is a very distinct transverse keel running parallel with the clypeal one, genæ well developed, oblique; inner joint of the antennal club a little shorter than the one following; prothorax somewhat convex, ampliated laterally in the posterior part, anterior angles sharp, posterior broadly rounded, lateral fringe of hairs not dense, surface moderately deeply punctulate, punctures equi-distant, not closely set; scutellum closely punctate; elytra sub-parallel, moderately convex, more deeply punctured than the prothorax, and without any visible costules; under side clothed with greyish moderately dense hairs; anterior tibiæ tri-dentate, tarsi not very long; the tooth underneath the claw quite plain.

Length 5 mm.; width 3 mm.

Hab. Transvaal (Maghaliesberg).

The only example of this species that I have seen is Herr Brenske's type, which he kindly lent me.

MICROCAMENTA SEBAKUENSIS, n. spec.

Pale testaceous, with the head slightly more rufescent; antennæ flavous; head and clypeus deeply pitted but the former more closely than the latter which, in both sexes, is very deeply emarginated laterally in the anterior part with the upper angle of the emargination very sharp, the anterior part is deeply incised in the centre in the male, and the outer angles very sharp, while in the female it is deeply emarginate, and the angles on that account are less prominent, the anterior part is reflexed but there is no distinct impressed transverse line as in *M. transvaalensis*, and the surface is hardly punctate, at about the median part there is a slightly bi-sinuate

suture and a sutural, slightly raised keel above it, which, however, is more suture-like in the female, genæ well developed, oblique; inner joint of antennal club of the male much shorter than the one following; prothorax somewhat densely punctured, lateral fringe of hairs moderately dense; scutellum punctulate; elytra sub-parallel, but a little ampliated laterally behind, not much convex, moderately deeply punctate and with the lateral fringe of hairs somewhat dense; inner spur of anterior tibiæ slightly bent outwardly at tip in the male.

Length $6\frac{1}{2}$–$7\frac{1}{2}$ mm.; width $3\frac{1}{4}$–$3\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Sebakwe).

MICROCAMENTA OVAMPOENSIS, n. spec.

Female: Very light straw-colour, antennæ and palpi of the same hue; shape and size of *M. sebakuensis*, but at once distinguished by the shape of the clypeus the anterior margin of which is bi-sinuate owing to the centre being plainly aculeate, the outer angles are, however, as sharp as in *M. sebakuensis*, but the upper angle of the lateral sinuation is not sharply aculeate, and the two ridges on the clypeus are more like raised sutures than keels; the vestiture is the same as in *M. sebakuensis*.

Length 7 mm.; width $3\frac{1}{2}$ mm.

Hab. Ovampoland (Omrramba).

TULBAGHIA, n. gen.

Mentum long, broader at the apex than at the base, but with the sides straight, fused with the ligula, the labial palpi are inserted on the lateral angle, the ligula being narrow, transverse, deeply sinuate in the middle, rounded laterally and extending only from one palp to the other, the outer face of the mentum is slightly convex and clothed with very long, dense, bristly hairs, but slopes very strongly towards the apex; last joint of labial palpi very swollen; maxillæ massive, upper lobe produced into six sharp arcuate teeth, last joint of maxillary palpi nearly cylindrical, and as long as the three preceding ones taken together; mandibles very robust, triangular, with the upper edge chisel-like and cleft in the middle; no labrum; clypeus briefly vertical and slightly sinuate in front, hollowed above with the margins reflexed, as long as the head and separated from it by a plain, transverse suture, eyes very bulging, broadly exposed on the upper side, divided in front by a narrow canthus of the genæ, head plane; antennæ 10-jointed; club 7-jointed in the male, the joints very long, foliate, equal in length and width and arcuate, third joint as long as the two preceding ones taken together and produced

inwardly into an angle or even a sharp tooth at its junction with the second joint which is short, sub-moniliform, the basal one is short and thick; prothorax hardly ampliated laterally in the middle if seen from above, and with both the anterior and posterior angles rounded; scutellum ogival; elytra cylindrical, slightly callose at the shoulders, not at the apex, slightly costulate, covering the pro-pygidium; apical part of the broad pygidium somewhat drawn forward; abdominal segments free, the basal one obliterated; meta-sternum very long; legs moderately robust, tarsi long; anterior tibiæ bi-dentate outwardly, and having a very long, slender inner spur, posterior ones with a plain, oblique ridge, apical spurs very long and slender; claws slender and simple.

Key to the Species.

Inner joint of antennal club of male as long as the joint following; third joint of pedicel sharply aculeate at the base .. .. *lightfooti.*

Inner joint of antennal club of male not so long as the joint following; third joint of pedicel not aculeate .. .. *cereris.*

TULBAGHIA LIGHTFOOTI, n. spec.

Head and prothorax dark chestnut, the elytra, pygidium, under side and legs lighter chestnut-brown, antennæ of the male also chestnut-brown; clypeus semi-circular in front and without traces of anterior angles, sub-sinuate laterally, deeply hollowed in the anterior part and having a short median tubercle, more deeply punctured in the posterior than in the anterior part and with the suture dividing it from the forehead broad and smooth; forehead plane, closely punctulate; prothorax sub-parallel laterally, only slightly obliquely narrowed in the anterior and posterior parts, and with the two angles equally rounded, rather plane, fringed with long, somewhat dense hairs, and covered with deep somewhat irregularly disposed punctures; scutellum punctulate laterally; elytra sub-cylindrical, but not much convex, closely and somewhat deeply pitted, and with the two dorsal costules distinct, outer margin fringed with somewhat long hairs; pygidium closely punctate and pubescent in the apical part; the closely punctured abdomen, pectus, and femora have a long but not very dense flavescent pubescence.

Length 11 mm.; width 5 mm.

Hab. Cape Colony (Tulbagh).

This species is not unlike a Pachypod in general appearance.

TULBAGHIA CERERIS, n. spec.

Pale testaceous, with the head slightly infuscate, the clypeus and prothorax reddish, and the antennæ flavescent; the clypeus is straight laterally and strongly arcuate in the anterior part without any trace of angles, moderately hollowed owing to the anterior margin being strongly reflexed, the median part has no tubercle, it is closely punctulate from the suture to the reflexed part which is nearly impunctate, the head is also closely punctate; the antennal club is long but the joints are not quite as parallel as in *T. lightfooti*, and the inner joint is about one-fourth shorter than the one following; prothorax equally rounded laterally in front and behind, and with the angles rounded, moderately closely punctate and fringed with long, remote hairs; elytra as in *T. lightfooti* but proportionately more deeply punctate, the costules are evanescent; under side rufescent, pubescent.

Length 6½ mm.; width 3 mm.

Hab. Cape Colony (Ceres).

GEN. CAMENTA, Erichs.,

Nat. Ins., iii., 1847, p. 695.

Mentum and maxillæ of *Ablabera*, the last joint of the labial palpi is, however, less thickened at the base; clypeus slightly narrower at the apex than at the base, either simple laterally, or incised there in the anterior part and more or less narrowed thence to the anterior angles which are sharp or moderately rounded, anterior margin seldom truncate, more or less deeply sinuate, anterior part of the clypeus with a transverse keel reaching or not from side to side, and which may either be sharp or become almost obliterated and is then replaced by a suture, and is divided from the head by an impressed line extending from side to side, but never affecting the shape of a keel; the eyes are not covered by the prothorax, and are incised in the anterior part by a small canthus formed by the nearly obliterated genæ, but in some species these genæ become large and project a good deal beyond the eye which they also incise more deeply (*C. rufiventris*, *C. transvalia*); it may be said that the genæ are more developed in the species which have the clypeus incised laterally; the margins are sharply raised, and there is always a depression in the anterior part between the apical margin and the clypeal keel, this impression is often smooth or little punctate, and the posterior part is plane; head slightly longer

than the clypeus, plane; antennæ 10-jointed in both sexes, the club joints varying in number from 8 to 4, always smaller and more ovate in the female than in the male; prothorax nearly straight laterally from the median part to the basal angle which is distinct although somewhat rounded, deeply bi-sinuate in the anterior part the angles of which are sharp and projecting; elytra elongated, slightly ampliated laterally from the third part of the length but only slightly sinuate there, not much convex (except the females of *C. caffrina* and *C. tumida*), rounded behind and covering the greatest part of the propygidium; pygidium convex, sub-vertical, not drawn inwards, nor as broad as the penultimate abdominal segment, these segments are convex, but although the suture is very plain they are not retractible; pectus moderately densely hairy; legs moderately long, anterior tibiæ uni- or bi-dentate outwardly, and having a very long inner spur, posterior ones with a plain oblique ridge, hind femora not very robust, tarsi moderately long, slender, each claw having underneath a membranous, conspicuous quadrate lobe which extends from the base to the median part, and is vertically truncate there, the anterior part of the claw is slender and very abruptly curved.

As stated in the diagnosis of this genus, the species can be divided into two groups according to the shape of the clypeus which is incised laterally or not, but this character has not a great generic importance, occurring as it does in species closely allied in general form as well as in others the general facies or even size of which differ somewhat considerably. An attempt has been made by Herr Brenske to split the genus mainly according to the number of joints composing the club of the male, and occasionally also of the female. This character is so much more fictitious that the joints of the pedicel abutting on to the club are always compressed, aculeate and laminate with a tendency to form an additional joint, even in several cases the inner joint of the club is only one-quarter of the length of the one following, and this same joint varies in length according to species; this goes far to prove that a specific character is thus made to serve as a generic one. I attach much more importance to the disappearance of an antennal joint than to the increase or decrease in length of one of the club joints; but even the distinctive value of the presence or absence of one or more joints in the antennæ is somewhat illusory when we find that in genera very closely allied to *Camenta* the male has a 10-jointed antenna and the female a 9-jointed one, and again in the male of a species belonging to a genus or sub-genus which but for this character could not be separated at all from *Camenta*, the antennæ are 9-jointed.

But as the divisions to which Brenske has given a name will help to identify the species, especially the male, I give them in the Key and also a few new ones.

Key to the Species.

A^2. Anterior tibiæ bi-dentate.

B^2. Clypeus not incised laterally.

C^5. Antennal club of male 8-jointed; of the female tri-jointed, but the seventh and sixth of the pedicel are half the length of those forming the club, fifth and fourth aculeate .. .. (EUCAMENTA).

Clypeus faintly carinate in the anterior part, inner joint of club two-thirds the length of the following joint .. .. *castanea.*

Clypeus plainly carinate, inner joint of club half the length of the following joint .. .. *transvaalensis.*

C^4. Antennal club of male 7-jointed, of the female 6-jointed .. .. (CAMENTA).

a^3. Clypeus not sinuate in front.

Inner antennal club joint of male slightly shorter than the one following .. .. *innocua.*

Inner club joint of male one-third shorter than the one following .. .. *lydenburgiana.*

a^2. Clypeus sinuate in front.

Clypeus emarginate, inner antennal club joint as long as the one following .. .. *salisburiana.*

a^1. Clypeus deeply arcuately emarginate.
Inner antennal club joint half the length of the one following .. .. *capicola.*

C^3. Antennal club of male 6-jointed, inner joint of the club of the male not quite as long as the one following; of the female 5-jointed, joints as in *Camenta* (HYBOCAMENTA).

a^2. Fourth joint of pedicel laminate in the male.

Clypeal keel very strong, arcuate; body rufo-testaceous .. .. *modesta.*

a^1. Fourth joint of pedicel aculeate.

b^2. Antennal club of male moderately long.

c^2. Clypeus emarginate in front.

Black or chestnut-brown, with the head infuscate. Inner joint of antennal club of male only slightly shorter than the one following:
Elytra not coriaceous .. .. *nigrita.*

Elytra coriaceous .. .. *coriacea.*

Inner joint of antennal club of male half the length of the club .. .. *pusilla.*

Inner joint of antennal club two-thirds the length of the club .. .. *tongaatsana.*

Antennæ flavous .. .. *rufina.*

Clypeus of male with an anterior carina .. .. *unicolor.*

Clypeus of male without even an anterior suture *inops.*

Antennæ black .. .. *simillima.*

c^1. Clypeus not emarginate in front.

d^2. Upper side glabrous.

Head and prothorax black, elytra testaceous with a black border and black suture; antennæ of male flavous .. .. *variabilis.*

d^1. Upper side pubescent.

Fuscous, elytra with a fuscous band or patch on each side; antennæ of male black .. .. .. *pilosella.*

b^1. Club of male very long.

Upper side black, elytra very deeply pitted .. .. *morio.*

B¹. Clypeus incised laterally.

C². Antennal club 5-jointed in both sexes, but with the inner joint slightly shorter in the female than in the male .. .. (HEMICAMENTA).

Anterior part of clypeus very deeply incised laterally in both sexes .. .. *caffrina.*

Anterior part of clypeus not deeply incised laterally in the female .. .. *tumida.*

C¹. Antennal club 4-jointed in both sexes; body villose .. (EMPECAMENTA).

D². Clypeus not incised laterally.

Clypeus deeply emarginate in the centre, outer angles somewhat rounded .. .. *rhodesiana.*

D¹. Clypeus incised laterally.

Clypeus not emarginate in front, apical angles not rounded .. .. *nigra.*

Clypeus incised in the centre in front; apical angles broadly rounded .. .. *matabelena.*

Clypeus deeply emarginate in front, apical angles sharply dentate .. .. *zambesina.*

Clypeus tri-dentate in front .. .. *mashona.*

A¹. Anterior tibiæ uni-dentate.

Club of male 6-jointed, fourth joint of pedicel laminate .. (ARCHOCAMENTA).

Head and median part of prothorax infuscate; elytra straw-colour, antennæ reddish .. .. *pilosa.*

CAMENTA (EUCAMENTA) CASTANEA, Bohem.,
Insect. Caffr., ii., p. 107.

Chestnut-brown, shining, club of antennæ flavescent; head and clypeus covered with nearly contiguous punctures, clypeus in the shape of a broadly truncate cone with the margins raised in the male, while in the female the anterior outer angles are rounded and the anterior margin very slightly sinuate, the clypeal ridge is ante-median, transverse, and plainer in the male than in the female, the 8-jointed flabellate club of the ♂ is equal to two-thirds of the length of the whole head, the inner joint is two-thirds of the length of the other joints; in the ♀ the club proper is 3-jointed and much shorter than in the ♂, but the three joints preceding, *i.e.*, the seventh, sixth, and fifth, are plainly laminate but decrease in length, the seventh joint being half the length of the following one, and the sixth and fifth decreasing in proportion; prothorax narrowed laterally in the ♂ from near the median part to the anterior angle which is strongly produced, nearly straight thence to the posterior angle, which is plainly rounded, moderately convex in the central part of the disk, covered with somewhat small, round punctures divided by a smooth interval equal in width to their own diameter; in the ♀ the prothorax is broadly rounded and ampliated laterally and equally narrowed towards the anterior and posterior parts; scutellum sharply ogival, depressed, and punctulate on each side of a median longitudinal raised line; elytra plainly wider at the base than the basal part of the prothorax, not sinuate laterally past the shoulders, humeral callosity very little pronounced, but slightly more so in the ♀ than in the ♂, moderately convex and covered with slightly rugose, unequal punctures very closely set, and having in the dorsal part three geminate punctulate striæ the intervals of which are slightly costulate in the ♀ but not in the ♂, the two lateral striæ or costules respectively are very faint; the propygidium is closely punctate but covered for the greatest part by the elytra; pygidium plainly convex in both sexes, and having an apical fringe of long, flavescent hairs; abdomen convex, each abdominal segment deeply punctured and with a transverse series of flavescent hairs; pectus closely punctured and moderately densely clothed with long, flavescent hairs; anterior tibiæ bi-dentate outwardly, and with the

inner apical spur very long; claws with a broad lobe sharply truncate in the median part.

Length 15–17 mm.; width 7½–9 mm.

I have seen two females only; they are smaller than the male.

Hab. Cape Colony (Port St. John, East London); Natal (Durban, Maritzburg).

Camenta (Eucamenta) transvaalensis, n. spec.

Male: Shape, colour, and sculpture of *C. castanea*, from which it differs, however, in the clypeus being more rounded laterally in front, the clypeal keel is slightly more raised, and the inner joint of the antennal club is only half the length of the following one.

Length 13½ mm.; width 7 mm.

Hab. Transvaal (Zoutpansberg).

Camenta innocua, Bohem.,

Insect. Caffr., ii., p. 108.

The description of *C. castanea* suits completely the present species, which is of the size of *C. transvaalensis*, the clypeus, however, is more rounded laterally in the anterior part the margin of which is slightly sinuate in both sexes; the 7-jointed club of the male is longer than the pedicel, and the inner joint is shorter by one-third than the second; in the female the 6-jointed club is a little shorter than the pedicel, but all the joints are of equal length, and the fourth basal joint plainly acuminate.

Length 13–14 mm.; width 7–7¼ mm.

Hab. Natal (Durban).

Camenta lydenburgiana, n. spec.

This species resembles very much *C. innocua*, but it is only half the size, the head and prothorax are more deeply punctured, the lateral fringe of hairs along the prothorax and the elytra is denser, the punctures on the elytra are deeper and rougher, the costules on the dorsal part are much more prominent, and in the male the inner joint of the 7-jointed club is only half the length of the club, and shorter by one-third than the joint following.

Length 10–11 mm.; width 5–5½ mm.

Hab. Transvaal (Lydenburg).

Camenta capicola, n. spec.

Male: Smaller than the other four preceding species and testaceous-red, instead of chestnut-red; the clypeus is a little

more attenuated laterally with the anterior angles much rounded, and the anterior margin sub-circularly emarginate, the clypeal keel is strong; the inner joint of the 7-jointed club is less than half the length of the one following; the punctures on the head and prothorax are very shallow, but those on the elytra are deeper than in *C. innocua*, and the costules are quite plain; the scutellum is not impressed and is slightly punctulate.

Length 10 mm.; width 5 mm.

Hab. Cape Colony (Mossel Bay).

CAMENTA SALISBURIANA, n. spec.

Testaceous, with the head and prothorax deeper brick-red. It very closely resembles *C. capicola*, the clypeus, however, is not so arcuately emarginate in the anterior part in the male, and the inner joint of the antennal club is as long as the one following; in the female the fourth joint of the pedicel is quite aculeate, and although very small, might almost be considered as part of the club; the prothorax is ampliated and rounded laterally in the centre, the anterior and posterior halves being there equally narrowed, and the basal angle very broadly rounded, whereas in *C. capicola* the posterior half is straight, and the basal angle distinct although blunt; the punctures on the head, prothorax, and elytra are similar in both species, and the costules on the latter part are equally plain.

Length 8–9 mm.; width $4\frac{1}{2}$–$5\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury).

CAMENTA (HYBOCAMENTA) MODESTA, n. spec.

This species resembles so closely *C. castanea*, although slightly smaller, and *C. innocua*, that but for the shape of the antennal club of the male of *C. modesta* they might be easily confounded; in the male the moderately long antennal club consists of six laminate joints of nearly equal length, and the fourth joint of the pedicel is plainly compressed and aculeate.

Length 14–$14\frac{1}{2}$ mm.; width 7 mm.

Hab. Natal (no exact locality).

CAMENTA (HYBOCAMENTA) NIGRITA, Blanch.,
Catal. Coll. Ent., 1850, p. 102.

Ablabera intermedia, Blanch., loc. cit., p. 102.
Ablabera rufipennis, Fähr., Insect. Caffr., ii., p. 110.

Fuscous, testaceous or chestnut-brown, but with the head always

more or less deeply infuscate; club of antennæ flavous in the male, piceous-red in the female; smaller than *C. modesta*, but of the same shape; clypeus deeply emarginate in front in the male, slightly less in the female, clypeal ridge and frontal suture distinct in both sexes; club of antennæ 6-jointed in the male, the inner joint being always a little shorter than the one following, the fourth joint of the pedicel is slightly aculeate, but not laminate; in the female the club is 5-jointed, but the inner joint is only half as long as the one following, and the fifth one of the pedicel is very sharply acuminate; head and prothorax closely punctulate; elytra covered with somewhat deep round punctures separated by a smooth interval equal to their own diameter, the dorsal costules are plainly visible.

Length 10–11 mm.; width 5–6 mm.

Hab. Cape Colony (Port Elizabeth, Graham's Town, Uitenhage); Natal (Durban, Umvoti).

Camenta (Hybocamenta) coriacea, n. spec.

Closely allied to *C. nigrita*, and similar in shape; the colour is light or brown chestnut, with the head somewhat infuscate, and the punctures on the elytra are divided by irregular raised intervals, giving the elytra a very coriaceous appearance.

Length 9½ mm.; width 5 mm.

Hab. Cape Colony (Kowie).

Camenta (Hybocamenta) pallidula, Fähr., Insect. Caffr., ii., p. 115.

Also closely allied to *C. simillima*, and merely differs from it by the plainly emarginate clypeus and the less parallel shape, this last is due to the elytra being a little ampliated laterally past the middle; the colouring is also different, the head is infuscate as in *C. simillima*, but the prothorax and elytra are a deeper testaceous, turning to dark chestnut-brown, or nearly black, and the punctures of the elytra are slightly deeper; antennal club of male as in *C. simillima*, but flavous instead of black.

Length 5 mm.; width 3¼ mm.

Hab. Natal (Durban).

Fähræus in his description compares this species with *Ablabera testacea*, Fähr., loc. cit., p. 114; the latter, however, belongs to the Sericid genus, *Ablaberoides*.

CAMENTA (HYBOCAMENTA) RUFINA, Fähr.,
Insect. Caffr., ii., p. 113.

Head fuscous, prothorax distinctly red; scutellum black, elytra testaceous; antennal club flavous in the male, rufescent in the female; head somewhat coarsely punctured, clypeus not distinctly emarginate in front, and with the outer angles rounded, the clypeal keel is straight, the clypeal suture is very distinct; antennal club of male 6-jointed, the inner joint slightly shorter than the one following, fourth joint of pedicel slightly aculeate, club of the female 5-jointed, but with the inner joint half as long as the others, and the fifth joint of the pedicel sharply acuminate; prothorax deeply punctured; elytra with the dorsal costules plainly defined, punctures round and separated by smooth intervals.

Length 8–9½ mm.; width 4½–5¾ mm.

Hab. Natal (Durban).

CAMENTA (HYBOCAMENTA) UNICOLOR, Bohem.,
Insect. Caffr., ii., p. 113.

Female: Closely resembling *C. rufina;* the colour, however, is paler, neither the head nor the scutellum are infuscate, the clypeus is plainly emarginate in front, the clypeal keel is slightly arcuate, the antennæ are flavous; the punctures on the head, prothorax, and elytra are finer and more shallow, and the costules on the elytra are hardly noticeable.

Length 8½ mm.; width 4½ mm.

Hab. Natal (Durban).

CAMENTA (HYBOCAMENTA) SIMILLIMA, n. spec.

Closely allied to *C. rufina*, but much smaller, and with the same colouration, *i.e.*, infuscate head and scutellum, reddish prothorax and testaceous elytra, paler, however, than in *C. rufina;* it is a little more parallel, the whole antennæ are black instead of flavous, the costules on the elytra are very feebly indicated, and the punctures are proportionately deeper. I know only the male of this species.

Length 6 mm.; width 3 mm.

Hab. Natal (Durban).

CAMENTA (HYBOCAMENTA) INOPS, n. spec.

Shorter and a little broader in proportion than *C. rufina*, and of nearly the same size as *C. simillima*, but broader; it is easily recog-

nised from both these species by the anterior part of the clypeus having in the male no traces of a transverse keel, the punctures on both the clypeus and head are broader and slightly deeper than in *C. rufina*, and the anterior part of the clypeus is not emarginate; the head is infuscate but has a reddish spot on the clypeus, the prothorax is rufescent but with an ill-defined, infuscate lateral patch; the scutellum is black and the elytra livid brown; the sculpture is that of *C. rufina*.

Length 6–6½ mm.; width 3½ mm.

Hab. Natal (Durban).

Camenta (Hybocamenta) tongaatsana, n. spec.

Piceous, with the anterior part of the clypeus and the extreme part of the elytra slightly piceous-red; antennal club of male flavescent, 6-jointed, with the inner joint slightly shorter than the following joint; clypeus emarginate in front, and covered, like the head, with very deep round punctures separated by a distinct interval; prothorax of the usual shape, the punctures fairly deep and distinct; scutellum plainly punctate; elytra more ampliated laterally past the middle in proportion to the size than the other species of that group, the punctures are deep with the intervals somewhat rugose, the first dorsal costule is hardly raised and the second is almost obsolete.

Length 6½ mm.; width 4 mm.

Hab. Natal (Upper Tongaats).

Camenta (Hybocamenta) variabilis, Fähr.,

Insect. Caffr., ii., p. 118.

Black, with the anterior legs and the elytra testaceous-red, but with the suture of the elytra and a marginal band black, scutellum black, upper side glabrous; clypeus straight in front in both sexes and with the clypeal keel and clypeal suture strong, deeply but not closely punctate, antennæ reddish, but with the club sub-infuscate in the male, only moderately elongated, 6-jointed, with the inner joint somewhat shorter than the one following, that of the female is 5-jointed as usual; prothorax covered with deep, round, non-contiguous punctures; scutellum punctulate; elytra very plainly ampliated laterally from about the median part, convex, covered with deep, sub-seriate punctures, costules very plain.

Length 4¾–5 mm.; width 3 mm.

Hab. Natal (Durban, Lower Tugela).

CAMENTA (HYBOCAMENTA) PILOSELLA, n. spec.

Black, but with the elytra deeply infuscate, and having two juxta-sutural testaceous bands in the posterior part, but extending at times from the shoulders to the apex, whole upper side clothed with sub-erect, not very dense sub-flavescent hairs; clypeus slightly sinuate in the anterior part and with the apical angles rounded, covered like the head with deep, but somewhat scattered punctures; prothorax covered with similar punctures; elytra deeply and coarsely punctate, the costules well defined; 6-jointed antennal club of male long, black, like the pedicel; anterior tibiæ testaceous; posterior ones more or less deeply infuscate. Female unknown.

Length $4\frac{1}{4}$–$4\frac{1}{2}$ mm.; width $2\frac{1}{2}$–$2\frac{3}{4}$ mm.

Hab. Natal (Lower Tugela, Umhamli village).

CAMENTA (HYBOCAMENTA) MORIO, Fähr.,
Insect. Caffr., ii., p. 120.

Black, very shining, glabrous above; antennæ black in the male, reddish but with the club partly infuscate in the female; clypeus not emarginate or sinuate in front, and with the anterior angles somewhat sharper in the male than in the female, the clypeal suture is nearly obliterated in the former, which is also more parallel, and the very long antennal club of which is 6-jointed, and the fourth joint of the pedicel briefly laminate, that of the female is 5-jointed; the shape and sculpture are the same as in *C. pilosella;* the anterior tibiæ are also testaceous.

Length $3\frac{3}{4}$–5 mm.; width 2–$3\frac{1}{4}$ mm.

Hab. Natal (Estcourt, Frere); Transvaal (Potchefstroom, Lydenburg).

CAMENTA (HEMICAMENTA) CAFFRINA, n. spec.

Red, with the head slightly infuscate in the male, black in the female the prothorax of which is also infuscate laterally, but occasionally totally piceous; the male is more elongated and less convex than the female, the clypeus is more deeply incised laterally and the two anterior angles are very sharp and project also more than in the female, the antennal club is 5-jointed in both sexes with the inner joint a little shorter than the one following, and the fifth joint of the pedicel is compressed and slightly acuminate; the punctuation of the head is very close, but not that of the prothorax; the costules of the elytra are very plain and the punctures sub-seriate.

Length $7\frac{1}{2}$–$10\frac{1}{2}$ mm.; width $4\frac{1}{2}$–$5\frac{1}{2}$ mm.

Hab. Cape Colony (Graham's Town, Uitenhage).

CAMENTA (HEMICAMENTA) TUMIDA, n. spec.

This species, the male of which is unknown to me, but will probably prove to be much more elongated, will be easily recognised by its rotund facies, which is much more convex than that of the female of *C. caffrina*. Head and prothorax piceous, elytra chestnut-brown; clypeus incised laterally past the median part, and narrowed thence to the sharp anterior angles, which, however, do not project, faintly bi-sinuate in the anterior margin, nearly smooth in front, but deeply punctured between the clypeal keel and the suture, head covered with nearly contiguous round punctures; prothorax with sub-contiguous round punctures, outer margins serrulate in the posterior parts; elytra very convex, with the intervals between the very plainly raised costules filled with equi-distant, round, deep punctures.

Length 11–12½ mm.; width 6½–7 mm.

Hab. Cape Colony (Albany, Seymour).

CAMENTA (EMPECAMENTA) RHODESIANA, n. spec.

Chestnut-red, clothed on the upper side with a somewhat dense, erect, light fulvous pubescence; anterior part of the head ferruginous, clypeus not incised and narrowed laterally, but very deeply notched in the anterior part the angles of which are much rounded, the clypeal keel is sinuate and highly raised, the clypeal suture is almost obliterated, the anterior part of the clypeus is smooth, the posterior and also the head roughly foveate; the 4-jointed antennal club of the male is very long, and the joints equal, the sixth joint of the pedicel is compressed, and the three preceding it very short and equal in length; prothorax short and very diagonally ampliated laterally from the anterior to the median part, somewhat deeply and closely punctured, each puncture bearing a hair; elytra of the normal shape but without any traces of costule, deeply punctured, each puncture divided by a smooth space equal to their diameter and each bearing a hair.

Female unknown. This species is closely allied to *E. sierra leonis*, Brsk., the type of which is a female, but the prothorax slopes more laterally from the anterior angle to the median part.

Length 10 mm.; width 5¾ mm.

Hab. Southern Rhodesia (Sebakwe).

CAMENTA (EMPECAMENTA) NIGRA, Arrow,

Ann. & Magaz. Nat. Hist., Ser. 7, vol. ix., 1902, p. 95.

Black, shining, clothed with an erect, sub-flavescent pubescence, tarsi piceous, head and clypeus deeply and closely punctured, the

latter is plainly incised laterally and narrowed thence to the anterior angles which are sharp but not projecting in the male, the only sex I know, and the anterior, reflexed margin is slightly bi-sinuate, there is a transverse impressed line in the anterior part reaching from one end of the lateral incision to the other, but neither clypeal keel nor clypeal suture; the 4-jointed antennal club is longer than the pedicel the two ultimate joints of which are very small and compressed, and the club, the four joints of which are of almost equal length, is flavescent; prothorax deeply punctate, the punctures round, equi-distant, and separated by a smooth interval nearly equal in width to their own diameter; elytra very coarsely punctured with the intervals strongly coriaceous, the two dorsal costules very faint.

Length $6\frac{1}{2}$–7 mm.; width $3\frac{1}{4}$–$3\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Salisbury).

CAMENTA (EMPECAMENTA) MATABELENA, n. spec.

Black, and covered like *C. nigra* with an erect flavescent pubescence; it is, however, more robust, and the shape of the clypeus is different, being incised laterally and narrowed towards the anterior part as in *C. nigra*, but the apical angles are very broadly rounded, and the median part deeply and broadly notched and very plainly reflexed in both sexes, the transverse clypeal keel is quite distinct, and the clypeal suture is indicated in the male by a fringe of hairs, but is visible in the female, the pubescence is denser and longer, especially on the head and prothorax; the elytra are deeply punctured, but not coriaceous; the antennal club of the male is slightly shorter than the pedicel, and therefore not as long as in *C. nigra*, and the genital armature of the male is also different.

Length $8\frac{1}{2}$–9 mm.; width $4\frac{1}{2}$–$4\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Buluwayo).

CAMENTA (EMPECAMENTA) ZAMBESINA, n. spec.

Black, with the elytra light chestnut, clothed with a flavescent pubescence, very long and villose on the head and prothorax; clypeus incised laterally with the angles of the incision very sharp, narrowed and parallel thence to the anterior angle which is strongly and sharply produced and reflexed, the anterior margin being thus arcuately emarginate, the keel and clypeal suture have disappeared in the male, the only sex I know, but the latter can be detected in the shape of a slight transverse elevation; the head and the posterior part of the clypeus are closely punctured, the prothorax moderately so, and the punctures on the elytra are equi-distant, deep but with

smooth intervals, and bear each a short hair, the two dorsal costules are very faint; the 4-jointed club is not quite the length of the pedicel, and the whole antennæ are rufo-flavescent.

Length 6½–7½ mm.; width 4–4½ mm.

Hab. Southern Rhodesia (Victoria Falls, Sebakwe).

Camenta (Empecamenta) mashona, n. spec.

Testaceous, with the head and prothorax brick-red, moderately shining, and clothed all over with erect, somewhat densely set, long, flavescent hairs; clypeus narrowed laterally below the strongly angular notch, plainly tri-dentate in front owing to there being a conspicuous median tooth on the anterior margin and the two outer angles being sharply reflexed and acute; there is a strongly developed transverse bi-sinuate keel, and the clypeal suture is deep, the head and the posterior half of the clypeus are very coarsely punctate, and the anterior part is somewhat excavate; prothorax ampliated laterally, rounded there past the median part and with both angles broadly rounded, covered with somewhat irregular, deep, moderately closely set punctures; scutellum punctate in the centre; elytra sub-cylindrical, somewhat elongated, without traces of costules, deeply punctate; pygidium, abdominal segments, and pectus pubescent, anterior tibiæ bi-dentate, antennal club of male 4-jointed.

Owing to the presence of the strong clypeal keel and deep suture, as well as the narrowed anterior part of the clypeus, this species might be mistaken for a *Microcamenta*. But the genæ are not greatly developed, and the claws are those of *Camenta;* the antennal club of the male is 4- instead of 7-jointed.

Length 8–8½ mm.; width 4¼–4½ mm.

Hab. Southern Rhodesia (Salisbury).

Empecamenta boromensis, Brancs.,

Jahr. Ver. Trencs., xvi., 1897, p. 113, pl. iv., fig. 4.

"Elongate, yellowish, with flavid hairs, roughly and densely punctate on the upper side; clypeus narrowed at apex, slightly emarginate laterally before the apex, with a foveate impression towards the rounded anterior angles; antennæ testaceous; head and prothorax darker than the elytra; thorax transverse, longer by one-half than broad, rounded laterally past the middle, narrowed in the anterior part, the fore margin straight, the posterior broadly rounded, dorsal part with hairs shorter than those on the margins; elytra not wider at the base than the prothorax, gradually ampliated behind, rounded and declivous at apex, two and a half times as long as the

prothorax, slightly impressed inwardly towards the shoulders; pygidium broadly triangular, rounded at apex, densely punctate but more finely than on the elytra; more sparingly hairy underneath; femora and knees infuscate; anterior tibiæ bi-dentate, the apical tooth the longest but not strongly curved.

Length 6·5–7 mm.; width 3·2–4 mm.

Hab. Zambesi River (Boroma)."

This species might prove to be a close ally of, if not identical with, *E. matabelena.*

CAMENTA (? ARCHOCAMENTA) PILOSA, Fähr.,
Insect. Caffr., ii., p. 116.

Male: This species, which resembles more in general facies an *Ablabera* than a *Camenta*, is a small insect with infuscate or nearly black head, the prothorax is also deeply infuscate in the anterior part, but has a broad, brick-red band near the basal part, the scutellum is black, the elytra almost stramineous but with a lateral fuscous band; the clypeus is gradually narrowed laterally, with the angles moderately rounded, and the anterior part slightly sinuate in the centre, the clypeal keel is sharp and the frontal suture plain, and it is more deeply punctured than the head; prothorax of the normal shape, not deeply punctulate and fringed laterally with long, pallid, but not densely set hairs; scutellum feebly punctulate; elytra with only the first dorsal costule distinct, deeply punctured and somewhat coriaceous especially along the fuscous border; the antennal club of the male is 6-jointed, and the fourth basal joint is plainly laminate and acuminate, but short; the anterior tibiæ have only an apical outer tooth.

Length 5 mm.; width $2\frac{3}{4}$ mm.

According to Brenske the characteristics of *Archocamenta* are a 5-jointed antennal club in the male and uni-dentate anterior tibiæ. *C. pilosa* has the latter, but the antennal club is plainly 6-jointed.

Hab. Mozambique (Rikatla).

CAMENTA VENTRICOSA, Bohem.,
Öfv. Vet.-Akad. Förh., 1860, p. 116.

" Ovate, convex, piceous-black, shining, antennæ and palpi testaceous; abdomen obscurely ferruginous; head closely punctate, transversely carinate before the median part; prothorax very finely and moderately closely punctate; elytra not deeply, yet moderately closely punctate, but more lightly and sparingly in the posterior than in the anterior part, and having on each side two smooth, not

raised dorsal carinæ; pygidium not deeply punctate, and having a moderately wide transverse smooth area.

Var. *a.* testaceous-red, head black, legs piceous.

Length 9¾ mm.; width 6 mm.

Hab. In the neighbourhood of Lake N'Gami."

I have seen the type only of this species. From my notes I find that it is almost twice as large as *Oocamenta rufiventris*, and is therefore very short and stout, the clypeus is short, very deeply incised in front in the anterior margin, slightly constricted laterally, the angles of the stricture being dentate, and the transverse carinule is a clypeal one. I did not at the time look at the number of antennal joints, but it is very doubtful if this species belongs to *Camenta*.

PERICAMENTA, n. gen.

This genus differs from *Camenta* merely in the number of antennal joints, which is nine instead of ten. In the male, the only sex known to me, the club is 5-jointed, the inner joint being only slightly shorter than the one following, the fourth joint of the pedicel is compressed and acuminate, and the third one moderately long; the shape of the clypeus, and also the general facies, is that of *Camenta innocua* or *C. nigrita*.

Pericamenta paupercula, n. spec.

Dark chestnut-brown, with the head and prothorax fuscous, antennæ rufescent, legs piceous; clypeus straight laterally, slightly narrower at the apex than at the base, anterior angles moderately rounded, anterior margin sinuate, the clypeal carina looks more like a suture, being hardly raised; antennæ 9-jointed in the male, the club 5-jointed with the inner joint slightly shorter than the one following, and the fourth joint of the pedicel short and compressed; the head and prothorax are covered with punctures of the same size, the elongate elytra are somewhat deeply punctured with the intervals slightly coriaceous, and the costules are quite visible.

Length 10 mm.; width 5 mm.

Hab. Cape Colony (no exact locality).

OOCAMENTA, n. gen.

Buccal organs of *Camenta*, the number of antennal joints is, however, 10 in the male with a 6- or 7-jointed club the joints of which are equal in length, and of nine in the female, in which the club is 4-jointed and the joints also equal in length; the clypeus is not

incised laterally, and has the anterior keel and the frontal suture of *Camenta*, but the genæ are considerably developed and project beyond the eyes, the head is somewhat declivous, and the broadly ampliated, convex elytra give to the species included in this genus the appearance of a *Trochalus;* the anterior tibiæ are strongly bi-dentate outwardly, the claws are those of *Camenta*, the abdominal segments are not free although the sutural line is deep, but the hind femora are nearly as laminate as in *Trochalus*, and the short hind tibiæ are also short, broad, and although bi-dentate on the upper edge, have no oblique ridge on the outer side.

Key to the Species.

A². Antennal club of male 6-, of the female 4-jointed .. .. (OOCAMENTA).

Body short, ampliato-ovate; prothorax and elytra faintly punctate .. .. *rufiventris.*

A¹. Antennal club of male 7-, of the female 4-jointed .. .. (PSEUDOCAMENTA).

Body less ampliato-ovate; prothorax and elytra strongly punctate .. .. *transvaalia.*

OOCAMENTA RUFIVENTRIS, Burm.

Camenta rufiventris, Handb. d. Entomol., iv., 1855, p. 146.

Head, prothorax, and scutellum black, very shining; elytra as black as the prothorax, or having on each side a large basal reddish patch which often invades the whole surface, abdomen reddish, pectus piceous-red; antennæ occasionally brownish in the male, but almost always flavescent in the female, the 10-jointed antennæ of the male have a 6-jointed club longer than the pedicel the fifth joint of which is plainly angular at the base, the antennæ are 9-jointed in the female, and the 4-jointed club is as long as the pedicel the fourth joint of which is aculeate, and the fourth and third are almost fused; the clypeal keel and suture are very plain, and the punctures of the whole head are moderately closely set; the short, convex prothorax is very faintly aciculate in the male, but finely punctate in the female, except in the median posterior part; elytra short, ampliato-ovate, convex and having somewhat seriate rows of shallow punctures without any traces of costules; pygidial part deeply and closely punctate; abdominal segments weakly punctulate, pectus sparsely hairy.

Length $5\frac{1}{2}$–$7\frac{1}{4}$ mm.; width 4–5 mm.

Hab. Southern Rhodesia (Buluwayo, Victoria Falls, Enkeldoorn, Sebakwe); Transvaal (Lydenburg).

Oocamenta (Pseudocamenta) transvaalia, n. spec.

Black, with the abdomen red, piceous-red, or testaceous-red, the elytra, however, are often testaceous and more or less broadly infuscate laterally; the antennæ are flavous in both sexes, the 10-jointed ones of the male have a long 7-jointed club the inner joint of which is slightly shorter than the one following, the 9-jointed antennæ of the female have a 4-jointed, somewhat elongated club the joints of which are of equal length; the head and clypeus have the same shape as *C. rufiventris*, the genæ are equally produced, the emargination of the anterior part, the keel, and the suture are identical, the body, however, is much less ampliato-ovate, although distinctly convex in the hind part of the elytra, the punctures are deeper and very plain all over, and the costules of the elytra are visible.

Length $6\frac{1}{2}$ mm.; width $3\frac{1}{2}$–$3\frac{3}{4}$ mm.

Hab. Transvaal (Johannesburg, Pretoria, Lydenburg).

Gen. DIPLOTROPIS, Bohem.,

Insect. Caffr., ii., p. 104.

Mentum plainly ampliated but not deeply constricted laterally towards the anterior part the angles of which are obliquely truncate but not angular, and the anterior margin plainly sinuate, inner face very convex and not visibly impressed in the anterior part, last joint of labial palpi ovato-acuminate; maxillæ and palpi as in *Ablabera* and *Camenta*, but the former have five teeth only; clypeus semicircular but incised laterally and deeply notched in the anterior part with the margins sharp and reflexed, it has an anterior arcuate ridge in the anterior part and another one at the junction with the forehead, and the genæ are greatly developed; the antennæ are 10-jointed, and in the two species known the antennal club is long and 7-jointed; the general facies is that of *Camenta*, the claws also being alike, but it is differentiated by having two clypeal keels instead of a clypeal keel and a frontal suture.

Key to the Species.

Clypeus deeply emarginate in the anterior part, prothorax and elytra fringed with dense hairs; inner joint of club of male as long as the one following .. .. *nigrina.*

Clypeus deeply and narrowly notched in the anterior part; prothorax and elytra with seriate, remote hairs; inner joint of club of male one-fourth the length of the one following .. .. *castanea.*

DIPLOTROPIS NIGRINA, Fähr.,

Insect. Caffr., ii., p. 105.

Diplotropis rufina, Fähr., loc. cit., p. 106.

Piceous, with the posterior part of the elytra reddish-brown, antennæ of the male yellow, clypeus semi-circular, very slightly notched near the arcuate clypeal carina and very broadly rounded thence to a deep median emargination, the frontal keel is sharp, the rounded genæ are very distinct and project much beyond the eyes, both head and clypeus are covered with deep but not closely set punctures; antennal club of male very long, 7-jointed, all the joints of equal length; prothorax convex, deeply but not closely punctured, fringed laterally with somewhat long, sub-fulvous hairs; elytra sub-parallel, fringed laterally with long, dense hairs, deeply punctate, the punctures round and the intervals plane, the two dorsal costules visible; pygidium, abdomen, and femora with a somewhat long pubescence. Female unknown.

Length 7 mm.; width 4 mm.

Hab. Transvaal (Lydenburg).

DIPLOTROPIS CASTANEA, Fähr.,

Insect. Caffr., ii., p. 106.

Head and prothorax piceous, elytra piceous turning occasionally to dark brown; clypeus shaped like that of *C. nigrina*, but much more deeply cleft in the centre and bi-lobate on that account, this median incision does not, however, reach the strongly arcuate clypeal suture, the genæ project conspicuously, the clypeal carina is very sharp, the clypeus is deeply punctate, and the head and genæ sub-rugose; antennæ reddish, club long, 7-jointed, but with the inner joint only one-fourth as long as the others; prothorax and elytra with a fringe of spaced, seriate hairs, the former is deeply but not closely punctured, the punctures are much deeper and slightly more closely set on the elytra, the pygidium, abdomen, and pectus are pubescent. Female unknown.

Length 8 mm.; width 4 mm.

Hab. Natal (Maritzburg).

PARACAMENTA, n. gen.

Mentum of *Tulbaghia*, but the labial palpi are inserted at a short distance from the anterior angles, and the apical joint is swollen outwardly; jaws of *Camenta* and *Ablabera;* clypeus longer or as long as the head, declivous, straight laterally from near the base to

about half the length, and thence strongly arcuate towards the apex, the anterior margin is straight, strongly reflexed, and the anterior part is somewhat hollowed, very little or not at all impunctate, and the deeply punctate posterior part is, with one exception (*P. calva*), clothed with long erect hairs, it is separated from the head by an arcuate suture reaching the anterior angles of the eyes which are incised by a narrow canthus, but in one species (*P. bohemani*) there is, in addition to the suture, a plain median keel; antennæ 10-jointed in the male, the only sex known, the long club is 7-jointed; prothorax somewhat short, more attenuated laterally in the anterior than in the posterior part, and with both the anterior and posterior angles obtuse, not much convex, and fringed laterally with long hairs; elytra slightly ampliated laterally in the posterior part, somewhat depressed and covering the propygidium, faintly costulate and fringed laterally with long hairs; pygidium convex, drawn inwards; abdominal segments seemingly free or partly free; legs and claws of *Camenta*, from which this genus differs mainly by the hollowed clypeus, the drawn-in pygidium, the plainly more free abdominal segments, and the rounded anterior angles of the prothorax.

Key to the Species.

A. Third joint of the pedicel of antennæ shorter than the two basal ones taken together.

B². Third joint of pedicel inwardly triangular.

*a*². Clypeus with a median transverse keel.

Body testaceous-red .. .. *bohemani.*

*a*¹. Clypeus without a median keel.

Upper part of body chestnut-brown .. .. *conspicua.*

Body testaceous, prothorax with a median, and elytra with a sutural broad black band .. .. *suturalis.*

B¹. Third joint of pedicel sharply aculeate at the base.

Head black, prothorax red; elytra straw-colour.. .. .. *lydenburgiana.*

A. Third joint of the pedicel of antennæ as long as the two basal ones taken together.

B. Third joint of pedicel slightly angular inwardly in the middle.

Upper part of clypeus densely hairy; inner joint of antennal club as long as the one following .. .. *verticalis.*

Upper part of clypeus not hairy; inner joint of antennal club shorter than the one following .. .. *calva.*

PARACAMENTA BOHEMANI, Brensk.,
Berl. Entom. Zeit., 1897, p. 339.

Testaceous-red, with the head, but not the clypeus, slightly fuscous; the clypeus is slightly sinuate laterally near the base, parallel for half the length, slightly angular near the rounded lateral part, and has a transverse median keel situated at about one-third of the length, the space below this keel is punctulate but not closely so, and there is a median smooth space, but the space between this keel and the suture is as closely punctured as the head itself, and clothed with somewhat sparse erect hairs forming a denser fringe along the keel, antennal club of male long, curved, the inner joint slightly shorter than the one following, eyes large, strongly bulging; prothorax fringed laterally and also on the sides of the anterior margin with long, sub-fulvous hairs, covered with fine, round punctures separated by an interval equal to their own diameter, hairy in the basal part above the scutellum which is finely punctulate in the centre; elytra fringed laterally with somewhat dense long hairs, slightly ampliated from beyond the humeral part, but not appreciably sinuate, covered with deep, round punctures separated by smooth intervals slightly broader in diameter than the punctures themselves, the two dorsal costules are very plain on each side, and the lateral ones are distinct; pygidium vaguely punctate and with a fringe of long hairs along the margin; abdominal segments with a fringe of somewhat setulose hairs, femora and pectus densely hairy.

Length 12 mm.; width $6\frac{1}{4}$ mm.

Hab. Cape Colony (Seymour).

PARACAMENTA CONSPICUA, n. spec.

Chestnut-brown, head very slightly infuscate, palpi and antennæ rufescent; clypeus in nowise angular laterally, but as usual slightly narrowed near the base, anterior margin straight in the median part, the anterior part of the clypeus is partly hollowed, partly declivous, and almost impunctate, but the still more abrupt anterior part is scrobiculato-punctate, each puncture bearing a long, erect, almost bristle-like flavescent hair, head plane, closely punctulate, hairless; prothorax finely punctured but with the punctures separated by a smooth interval of the same width as their diameter, broadly sinuate on each side at the base, fringed with long hairs; scutellum impunctate; elytra deeply punctured with the narrow intervals slightly raised in the posterior part, the dorsal costules are plainly visible,

and the margins fringed with dense, long hairs; pygidium closely punctulate; abdomen hairy, pectus and femora densely hairy.

Length 12 mm.; width 6 mm.

Hab. Transvaal (no exact locality).

PARACAMENTA SUTURALIS, n. spec.

Testaceous, with the posterior part of the clypeus, the head, the median discoidal part of the prothorax, and a broad sutural band black; antennæ rufescent; build and sculpture of *P. conspicua*, but without a fringe of long hairs along the sides of the prothorax and elytra; the clypeus is of the same shape as in *P. conspicua*, and the posterior part is equally scabroso-punctate, but the hairs there are not so dense, the under side is, however, as hairy.

Length 10½ mm.; width 5¾ mm.

Hab. Natal (Hilton Road).

PARACAMENTA LYDENBURGIANA, n. spec.

Head and under side fuscous, prothorax reddish; elytra almost straw-colour, antennæ rufescent; anterior part of the clypeus nearly impunctate, broadly excavate, posterior part punctate and hairy, head punctulate; club of antennæ very long, joints equally long, third joint of pedicel aculeate at the base; prothorax of the normal shape, but a little more elongate than usual, and with a fringe of long but not dense flavescent hairs; elytra cylindrical, punctate, costules evanescent, lateral fringe of hairs not dense; under side hairy.

Length 8 mm.; width 4 mm.

Hab. Transvaal (Lydenburg).

PARACAMENTA VERTICALIS, Bohem.,
Insect. Caffr., ii., p. 109.

Brick-red, somewhat shining and fringed along the prothorax and the elytra with very long, dense flavescent hairs; clypeus shaped as in the two preceding species, but the hollowed anterior part is very narrow, and the long, erect hairs spring from nearer the anterior margin, and are very long; the shape and sculpture of the elytra is as in the preceding species and quite as deep in proportion to the size of the insect; the abdomen and femora are hairy, and the pectus densely so; the antennal club is very long, and all the joints are equal in the male, the third joint of the pedicel is long and somewhat aculeate inwardly in the median part.

Length 7½ mm.; width 4 mm.

Hab. Transvaal (Lydenburg).

PARACAMENTA CALVA, n. spec.

A little smaller than *P. verticalis*, and more reddish; the clypeus is of the same shape but there is a broader smooth space in the anterior part, the posterior is punctate but not scabrose and without erect hairs; the prothorax and the elytra are similar in shape and sculpture, but are fringed laterally with short, somewhat remote hairs; the under side is equally hairy; the inner joint of the antennal club is a little shorter than the one following; the third joint of the pedicel is long and somewhat aculeate inwardly in the median part.

Length 6–7 mm.; width 3–3½ mm.

Hab. Transvaal (Zoutpansberg).

IDÆCAMENTA, n. gen.

Mentum of *Camenta*, maxillæ with five teeth only, as in *Diplobothris*, three superposed ones in the upper and two in the inner side, last joint of maxillary palpi long and very plainly fusiform; clypeus shorter than the head and declivous, parallel laterally, deeply incised, at two-thirds of the length, much narrowed thence, but still parallel, as far as the very slightly rounded apical angles, anterior edge broadly emarginate, strongly recurved somewhat in the manner of a *Trochalus*, hollowed in the anterior part, the hollowness being bounded by an impressed line, sub-vertical above that line as far as the median keel which is sub-arcuate and reaches from side to side, plainly declivous thence to second arcuate keel separating it from the head which is plane, the genæ are strongly developed, but oblique and not rounded or ampliated in front of the eyes, the antennæ are 10-jointed in the male, the only sex known, the 10-jointed club is extremely long, and curved, the third joint of the pedicel long and aculeate inwardly near the base; facies, sculpture, and build of *Pseudocamenta*, of which it has also the claws, the drawn-in pygidium, and the free or nearly free abdominal segments, but from which it differs by the altogether different shape of the clypeus, which resembles that of a Trochalidous melolonthid.

IDÆCAMENTA JUCUNDA, n. spec.

Pale testaceous or testaceous-red, antennæ flavous; the hollowed and declivous parts of the clypeus is almost impunctate, but the space between the two keels and the head is covered with deep, closely set, but not quite contiguous punctures; joints of the club equal, as long as the prothorax, the third one of the pedicel with a plain

pencil of hairs at the aculeate part; prothorax covered with somewhat closely set round punctures; scutellum impunctate; elytra not sinuate laterally, very slightly ampliated there past the median part, not convex except in the posterior, deeply and somewhat closely punctured, and with the costules very plain; pygidium and abdomen as deeply and quite as closely punctured as the elytra, the pubescence on the latter fairly long, and very long and dense on the pectus and on the femora.

Length 11–13 mm.; width 6–7 mm.

Hab. Natal (Durban); Transvaal (Barberton, Rustenburg), Southern Rhodesia (Salisbury).

LERIBE, n. gen.

Mentum deeply foveate, sparingly villose, gradually and roundly ampliated from the base to the ligular part which is fused with the mentum, and broadly and deeply emarginate in front, the labial palpi are inserted on the outer face of the mentum, close to the sides, basal joint very small, nearly sunk into the cavity, last one longer than the two, swollen outwardly; maxillæ robust, concave, without any traces of inner lobe, the upper margin is strongly angular outwardly and has five sharp teeth arranged in a row, the maxillary palpi are inserted quite close to the projecting upper angle of the maxillæ, the two intermediate joints are sub-moniliform, and the apical one which is longer than the other three taken together is thickly fusiform; clypeus parallel, truncate in front and reflexed, plainly grooved transversely before the median part, and separated from the head by a frontal suture, the anterior vertical part of the clypeus is triangular, and there are no traces of a labrum, the head is as long as the clypeus, and has no ridge on the vertex, the eyes have no superciliary keel; in the male the antennæ are 10-jointed, the pedicel consists of four joints, the second of which is thickly moniliform, the third is as long as the first, the fourth is compressed, sharply aculeate inwardly, and is about one-sixth as long as those forming the 6-jointed club which is longer than the pedicel; prothorax ampliated laterally in the median part, and with the posterior angles rounded, not pubescent along the anterior margin; elytra sub-cylindrical, not covering the propygidium; pygidium convex, semicircular, slightly drawn forwards, abdominal segments contractile, basal one nearly completely hidden by the coxæ; all femora robust; anterior tibiæ bi-dentate outwardly and with an inner spur, tarsi moderately long and with the joints slightly dilated at apex, and glabrous underneath, claws long, slender,

cleft underneath past the median part, the lower tooth being very much shorter than the upper; apical spurs of posterior tibiæ sharp; anterior coxæ strongly conical.

This genus plainly connects the *Pachypodini* with the *Sericinæ*, and but for the position of the spurs of the hind tibiæ might have been included in the *Clavipalpes* of Lacordaire.

LERIBE VESCA, n. spec.

Black, shining; elytra and legs piceous-black; head deeply and somewhat coarsely punctured, clypeus truncate in front, straight laterally with the angles slightly oblique, impunctate above the anterior impressed transverse line which bear a few erect setæ, but punctate thence to the frontal suture; prothorax ampliated and rounded laterally slightly past the median part, fringed laterally with setæ, but not pubescent along the anterior or posterior margins, not much convex, but more dehiscent in the anterior part, and covered with deep, somewhat closely set punctures; scutellum longer than broad, rounded at the apex, depressed; elytra almost twice as long as the prothorax, covering the half of the propygidium, deeply and coarsely seriato-punctate, faintly bi- or tri-costulate in the dorsal part, glabrous but having a fringe of long sub-fulvous setæ; pygidium convex, semicircular at apex, fringed there with a row of long setæ, as broadly and deeply pitted as on the elytra; abdominal segments and pectus with long hairs in the seriate punctures; all femora thick, anterior tibiæ bi-dentate outwardly and with an inner spur, legs hairy; tarsi slightly longer than the tibiæ, joints lightly nodose at apex, claws long and very slender, slightly cleft underneath.

Length 5 mm.; width $2\frac{1}{2}$ mm.

Hab. Natal (Ulundi).

The shape of the clypeus is exactly the same as in *Onochæta porcata* of the Pachypodid Tribe of the Melolonthinæ.

SUB-FAMILY MELOLONTHINÆ.

Body with scales or soft hairs; labrum seldom absent; ligula fused with the mentum, sinuate or emarginate in front; maxillæ either edentate, very obtusely dentate or with robust teeth; number of antennal joints variable, that of the club also variable in the male, and usually 3-jointed in the female (*Sparrmannia Macrophylla* excepted); abdominal segments free, partially free, imbricated or fused; hind tibiæ with two spurs set on side of the basal joint, near or at the inner apical angle.

(*This Sub-Family can be divided into two sections.*)

I. Abdominal segments free or partly free.

Maxillæ without any inner teeth.. .. .. *Pachypodini.*

II. Abdominal segments fused together.

Maxillæ with strong inner teeth.

Antennal club 7-jointed in both sexes.. .. .. *Sparrmannini.*

Antennal club 3-jointed in the female.. .. .. *Melolonthini.*

Tribe PACHYPODINI.

Body without scales or squamose hairs,* in most cases densely hairy on the pectus and along the base of the prothorax; ligula fused with the mentum, both either broad or reduced to a mere stem-like process, maxillæ edentate, but with both lobes occasionally sharp, labial palpi inserted either laterally or on the outer face of the mentum, basal joint occasionally obliterated; antennæ 8–10-jointed, number of club joints variable in both sexes, clypeus either slightly blunt in front with the angles rounded, parabolic or semicircular with the apical margin always strongly reflexed, vertical or slanting backwards in front; eyes always large, briefly divided by a short canthus, frontal part keeled laterally or not and having often a transverse prominence or keel along the vertex; prothorax short, sloping in front; scutellum cordate; elytra depressed on the dorsal part, seldom plainly costulate or striate and with a humeral callus, but no apical one; abdomen either moderately convex or strongly compressed laterally in the male; the segments free or deeply imbricated, the ultimate one provided with a broadly extensible membranaceous hinge; anterior coxæ sub-vertical for at least one-third of their length, and conical at apex; hind femora swollen; hind tibiæ broadly dilated; episterna broad and separated by a sinuose line, often carinated in the upper part, from the epimera which are nearly equally broad.

The non-soldered segments of the abdomen and the edentate or nearly edentate maxillæ are really the only characters distinguishing this Tribe from the *Melolonthini.* Many of the characters enumerated above need, however, some explanation, in so far that the South African species and genera are concerned. The shape of the upper lobe (galea) of the maxillæ varies considerably: it is either hollow, compressed, arcuate or laminate, denticulate or serrulate,

* *Onochæta* is an exception, it has squamose hairs on the intervals of the elytra.

and even completely obliterated, it never has any teeth inwardly; the inner lobe is always visible, which is not the case in the *Sericinæ* or *Melolonthini*, and is either sharp or equal in length to the upper lobe, in which case it gives to the maxilla a tri-cornered appearance, and even when the galea is quite obliterated it is represented by a few more or less rigid setæ. It is plain from the structure of the maxillæ, and also of the mandibles, that the males do not take much solid food, or in many cases any at all, unless they have suctorial habits.

The maxillary palpi are either inserted laterally or on the outer part of the mentum which is never plainly separated from the labial or ligular part. It is, however, somewhat difficult to decide when the insertion is lateral or not, because the condyle, which is often very deep and wide, impinges often more on the edge of the outer face than on the lateral side, this insertion may then be said to be juxta-lateral, but it happens also that the basal labial joints are inserted on the narrowed outer face in such a way that they are either very close to each other or quite contiguous, this character coincides with an extremely narrowed mentum. The number of joints of these labial palpi is normally three, but in some cases (*Clitopa, Pseustophylla*) the basal one has disappeared or is so deeply buried in the condyle as to be invisible, or the second and third are fused together (*Apeiopsis*), the condyle is very oblique, very broad, and with such a carinate outer edge as to often form a sharp angle at the junction of the mentum with the ligular part; the labial palpi are long, especially the apical one; the clypeus is strongly vertical and broad in the anterior part, the anterior margin is strongly reflexed, and the upper anterior part often concave or depressed; the frontal part is either carinate laterally above the eyes, in which case this peculiarity coincides with the presence of a transverse keel or prominence on the vertex (*Cyclomera, Paraclitopa, Periclitopa, Pseustophylla*) or not; the labrum is usually very distinct, but is obliterated in two genera (*Achelyna, Pleistophylla*); the eyes are always large and very briefly divided in front by a short canthus, they show always less on the upper than on the under side, where they are sometimes so enormously enlarged that the mentum has been correspondingly narrowed (*Trichinopus, Pseudachloa*, &c.); the antennæ are 8–10-jointed, in the male the joints of the club vary in number from 8 to 3, and in the females of the South African species known to me from 5 to 3, this club is always greatly developed in the male, being sometimes more than three times the length of the pedicel the two last joints of which are generally compressed and acuminate or laminate, and the basal joint is in the shape of an elongated club, only in one

genus is the third joint plainly longer than the fourth (*Clitopa*), the club itself is either laminate, parallel, or spatuliform in the male, and ovate or ovato-ovate in the female; pygidium either vertical, sloping slightly backwards, or strongly drawn forwards; abdominal segments plainly not soldered together but in many species provided between the two ultimate segments with a distensible membrane, which would seem to imply that the other segments are only partially free; * anterior tibiæ bi- or tri-dentate, and with or without an inner spur, hind ones triangularly dilated towards the apex, spurs long, sub-contiguous, either sharp in the male or compressed and broadly dilated in the female, tarsi moderately long, or long, occasionally ciliate.

With the exception of *Clitopa præcalva*, little is known of the habits of the South African species. In the case of the former, however, they are those of certain Algerian species of *Rhizotrogus*, the females are wingless, the eyes considerably reduced, and they do not seem to leave the ground; the eyes are, however, not much inferior in size in the two females of *Ægostetha* and *Macrophylla* which I have seen, nor are they without wings. I suspect that several species will, however, prove to have apterous females.

This Tribe is represented in South Africa by forty-eight species representing twenty-four genera, which, with the exception of one (*Clitopa*), seems restricted to the South African area, but five kindred genera, including each one species, are recorded from Sansibar and British and German East Africa. I expect, however, that this number will be considerably increased. On the whole, the South African genera and species are fairly homogeneous, and merge insensibly into one another, in spite of the melolonthidous appearance of *Ægostetha*, *Macrophylla*, or *Onochæta*. Lacordaire founded for the reception of these genera a Sub-Tribe of *Melolonthinæ*, the *Macrophyllides*, thus separating them from his Sub-Tribe *Pachypodides*, and associating them with *Sparrmannia* and *Sebaris*. He is evidently in error, because not only the species of these two genera have maxillæ very strongly dentate inwardly; but the abdominal segments are very plainly fused together, and not "non soudés ensemble," as Lacordaire states, also because the maxillæ of *Ægostetha*, *Macrophylla*, &c., cannot be said to have a dentate external lobe. *Sparrmannia* and *Sebaris* belong to the *Melolonthini*, but form a distinct link with the South African *Pachypodini*, of which they have the livery, just as *Ægostetha*, which, except for its livery, so closely resemble in general facies and shape of clypeus

* This membrane is also found in the genus *Schizonycha* and allied forms of *Melolonthinæ*, in which the segments are quite fused.

Leribe of the Sub-Family SERICINÆ, connects the latter with the *Pachypodini.* Owing to the obliteration of the labrum the genera *Achelyna* and *Pleistophylla*, are also connected with the *Sericinæ*, but are differentiated by the mode of insertion of the spurs of the hind tibiæ as well as by their Pachypodinous appearance.

Key to the Genera.

A². Labial palpi inserted laterally.

B. Antennæ 10-jointed.

C². Frontal part not carinate laterally above the eyes.

D². Vertex without a transverse ridge.

E². Anterior tibiæ tri-dentate outwardly.

F³. Antennal club tri-jointed, joints laminate, parallel.

Antennal club not very long, acuminate; claws with a tooth-like angle at the base *Onochæta.*

Antennal club very long, not acuminate, claws with a sub-median vertical tooth underneath .. .. *Ægostetha.*

F². Antennal club more than tri-jointed, joints laminate, parallel.

Antennal club longer, 5-jointed .. .. *Macrophylla.*

Antennal club 6-jointed .. .. *Pleiophylla.*

E¹. Anterior tibiæ bi-dentate outwardly.

Antennal club 7-jointed .. .. *Eucylophylla.*

F¹. Antennal club tri-jointed, joints spatuliform.

Head with a frontal tubercle; prothorax excavate.. .. .. *Tlaocera.*

C¹. Frontal part carinate laterally.

D¹. Vertex with a transverse ridge or prominence.

E². Anterior tibiæ tri-dentate outwardly.

F². Antennal club tri-jointed.

Clypeus straight but slightly emarginate in front.

Upper lobe of maxillæ plainly toothed; antennal club not much longer than the pedicel .. .. *Kraseophylla.*

Upper lobe lamellate, denticulate; antennal club longer than the pedicel .. .. *Pasaphylla.*

Clypeus rounded or parabolic in front; antennal club shorter than the pedicel .. *Cyclomera.*

E[1]. Anterior tibiæ bi-dentate.

Clypeus blunt in front; antennal club much longer than the pedicel .. .. *Periclitopa.*

F[1]. Antennal club 5-jointed.

Anterior tibiæ tri-dentate.

Clypeus completely rounded in front; antennal club moderately long .. .. .. *Paraclitopa.*

A[1]. Labial palpi inserted on the outer face of the mentum.

B[2]. Insertion juxta-lateral.

C[3]. Claws with a short, sub-basal tooth underneath.

D[2]. Antennæ 10-jointed.

E[3]. Labrum vertical.

a[2]. Anterior tibiæ 3-dentate, frontal part carinate laterally above the eyes.

Antennal club of ♂ tri-jointed, ampliato-ovate, third joint not longer than the fourth *Ramoutsa.*

a[1]. Anterior tibiæ bi-dentate; frontal part not carinate laterally above the eyes.

Antennal club of ♂ 3-jointed, parallel, third joint longer than the fourth .. .. *Clitopa.*

C[2]. Claws with a plainly lobate, basal process underneath.

E[2]. Labrum obliterated.

Antennal club 7-jointed .. .. *Achelyna.*

Antennal club 8-jointed .. .. *Pleistophylla.*

C[1]. Claws cleft underneath.

D[1]. Antennæ 9-jointed.

Claws cleft underneath as in *Schizonycha*, antennal club very long, parallel in the ♂ .. .. .. *Trichiodera.*

Claws with two blunt teeth underneath in addition to the apical one; club of antennæ long, spatuliform .. .. *Pseustophylla.*

E[1]. Labrum horizontal, then vertical at apex.

Antennæ 10-jointed.

Claws simple, antennal club 7-jointed .. .. *Gamka.*

B[1]. Insertion median, basal joints nearly or quite contiguous.

C[3]. Antennæ 10-jointed.

D[2]. Antennal club tri-jointed.

E[2]. Anterior tibiæ tri-dentate.

Labrum obliterated, clypeus strongly aculeate in the vertical part; frontal part projecting as a laminate keel above the declivous clypeus .. *Aipeiopsis.*

E[1]. Anterior tibiæ bi-dentate.

Labrum transverse, very narrow, second and third joints of labial palpi fused .. .. .. *Pseudachloa.*

D[1]. Antennal club 6-jointed.

Clypeus laminate, projecting much beyond the vertical acuminate labrum .. .. *Trichinopus.*

C[2]. Antennæ 9-jointed.

Anterior tibiæ tri-dentate; antennal club tri-jointed; labrum triangular but with the suture nearly obliterated; pygidium strongly drawn forwards .. .. .. *Achloa.*

C[1]. Antennæ 8-jointed.

Anterior tibiæ tri-dentate; antennal club tri-jointed; apex of pygidium reaching to the base of the femora *Œdanomerus.*

Gen. ONOCHÆTA, Erichs.,

Nat. Ins., iii., 1847, p. 654.

Mentum broad at the base, narrowed at about one-third of the length whence it is sub-parallel with the outer angles of the apical part slightly rounded, and the apex truncate, yet slightly sinuate in the middle, separated on the outer face from the ligular part by a somewhat broad, shallow furrow; labial palpi inserted nearly, but not quite on the sides, last joint somewhat long, wholly straight inwardly, and outwardly only for about half the length, whence it is obliquely attenuate towards the sharply acuminate tip; upper lobe of maxillæ bluntly transverse at the tip, somewhat hollowed inside, inner lobe shorter than the upper, tooth-like, and also blunt at the tip; maxillary palpi long, apical one straight inwardly, more convex outwardly and slightly curved towards the apical part; mandibles arcuate and with the upper margin compressed at the tip; clypeus as long as the frontal part, slightly ampliated laterally from the base towards the basal angles which are only slightly rounded, truncate in the anterior part which is nearly laminate and projects much beyond the narrow, emarginate labrum, frontal part

not carinate laterally above the eyes, and having a basal, arcuate, only slightly raised keel; antennæ 10-jointed, joints sixth and seventh short, compressed, eighth, ninth, and tenth forming a club not quite as long as the pedicel, laminate and somewhat dilated at the tip, apical joint somewhat shorter than the one preceding; prothorax nearly twice as broad as long, slightly convex, and with the posterior angles moderately rounded; scutellum sub-ogival; elytra parallel, moderately convex near the base, barely covering the base of the propygidium; pygidium sub-vertical, slightly convex; intermediate and posterior tibiæ without an outer oblique ridge; anterior ones with an inner spur, and tri-dentate outwardly, hind spurs somewhat slender and moderately long; hind tarsi somewhat bristly underneath; claws long and having underneath a very small, juxta-basal vertical tooth.

The only species included in this genus is a very singular insect which, unlike the other South African *Pachypodini*, has strongly costate elytra, with the intervals filled with appressed, distinctly squamose hairs. The female is unknown. I have seen the type of the genus which is in the Schönherr Collection in the Stockholm Museum.

ONOCHÆTA PORCATA, Swartz,

Schönh. Syn. Insect., i., 3; Append., p. 87.

Male: Piceous, club of antennæ slightly reddish-brown; head, prothorax, pectus, and abdomen clothed with a somewhat light fulvous pubescence longer on the sides and base of the thorax, and also on the pectus; intervals of elytra filled with somewhat long, scale-like greyish fulvous scales; clypeus separated from the frontal part by an ill-defined, transverse suture obliterated in the centre, and like the frontal part it is covered with deep, round punctures from each of which springs a short hair, longer, however, on the frontal part the basal ridge of which is not very sharp; prothorax plainly ampliated laterally in the middle, deeply punctured, with the punctures larger and less closely set in the anterior part, and having a longitudinal impression in the median part only of the disk; scutellum moderately closely punctured, except in the apical part; elytra parallel, not much convex, but somewhat abruptly convex behind, strongly quadri-costate on each side, and with the suture also highly raised, the punctures are nearly smooth and shining, and the intervals, as well as the outer margin, are covered with scale-like appressed hairs springing from somewhat shallow punctures; propygidium aciculate; pygidium punctulate, clothed, like the abdomen, with appressed hairs, and having a fringe of

longer ones along the outer margin; femora and tibiæ somewhat hairy.

Female unknown.

Length 18 mm.; width 8 mm.

Hab. ? Transvaal (no exact locality).

GEN. ÆGOSTETHA, Blanch.,
Catal. Coll. Ent. Mus., 1850, p. 163.

This genus differs from *Macrophylla* merely in the number of the antennal joints forming the club, these being three instead of five, the club is in some species even longer and more curved than in *Macrophylla*, and the seventh joint is occasionally also laminate and long; the shape of the clypeus varies also in the species, some having an inner spur on the anterior tibiæ, others none; the facies also is not uniform, being sub-cylindrical in some and plainly depressed in others; these differences, however, and also some other minor ones cannot be regarded as generic.

Key to the Species.

A². Seventh joint of antennæ not laminate.

B². Anterior tibiæ with an inner spur.

Body testaceous-red.

Clypeus semi-circular, plane, separated from the frontal part by a distinct transverse suture; upper side glabrous; club of antennæ long, very little curved .. .. *simplex.*

A¹. Seventh joint of antennæ laminate, long.

Head and prothorax black.

Clypeus very concave, straight in front, separated from the frontal part by a very shallow arcuate line, upper side very pubescent; club of antennæ very long and strongly curved .. *ciliata.*

B¹. Anterior tibiæ without an inner spur.

Clypeus plane, parabolic in front.

Clypeal suture fine, but distinct; prothorax and elytra covered with a short, appressed pubescence, body massive, short.. .. .. *brachiata.*

Clypeal suture obliterated or indistinct; upper side glabrous; body sub-parallel .. .. *longicornis.*

ÆGOSTETHA SIMPLEX, n. spec.

Brick-red, shining, glabrous on the upper side, but with the vertical anterior part of the clypeus, the labrum, and the outer

margin of the prothorax hairy, the basal part and also the outer margins of the elytra are thickly and densely pubescent, and the pubescence fulvous; pectus also very thickly pubescent; club of antennæ chestnut-brown; clypeus short, semicircular from side to side with the anterior margin moderately raised, separated from the frontal part by a very plain, transverse stria, frontal part simple, whole head with somewhat scattered, round punctures; prothorax somewhat convex in the posterior part, not attenuated laterally from the median part to the rather sharp outer angle, and covered with equi-distant, not closely set, round punctures; scutellum moderately sharply ogival; elytra sub-parallel, sinuate laterally in the anterior part, covered with deep, round, equi-distant punctures separated by an interval broader than their diameter, the juxta-sutural stria is quite plain, and there is only a faint trace of a dorsal one; propygidium finely aciculate and very briefly pubescent; pygidium sparsely punctulate but smooth in the median part, not pubescent; abdomen sparsely punctulate even on the sides; legs very slightly punctate, femora moderately pubescent; hind tarsi ciliate underneath.

Length 19 mm.; width 9½ mm.

Hab. Cape Colony (Namaqualand).

ÆGOSTETHA CILIATA, Herbst,

Käf., iii., p. 45; pl. xxii., fig. 5.

M. maritima, Casteln., Hist. Nat., ii., p. 133.

Head and prothorax black, elytra and under side light chestnut, legs reddish-brown; the head, except the clypeus, and the prothorax are clothed with a dense, long, appressed, fulvous pubescence, the elytra have a very closely-set but very short pubescence of the same colour altogether obscuring the background, the pygidial part and abdominal segments are clothed with greyish appressed hairs much less closely set than on the elytra, and the pectus is hidden by a fulvous very dense villosity; clypeus concave, truncate in front and with the outer angles moderately rounded, impunctate, separated from the somewhat depressed frontal part by a very plain, transverse suture; frontal part very closely punctured; club of antennæ very strongly curved, and as long as the prothorax, the seventh joint is plainly lamellate and about one-eighth of the length of those forming the club, the sixth and also the fifth are somewhat aculeate, the three preceding are equal and sub-moniliform; prothorax emarginate laterally, and sinuate from about the median part to the somewhat sharp basal angle, very finely and closely punctured; scutellum finely punctured; elytra sub-cylindrical, very finely

and closely punctate, and showing no traces of striæ or costules except the juxta-sutural stria; pygidium vertical, somewhat deeply and very closely punctate, sub-coriaceous.

Female unknown.

Length 21–22 mm.; width 11–12 mm.

Hab. Cape Colony (Riversdale, Knysna).

I am not quite satisfied that this insect is the *M. ciliata* of Herbst, and I only give it on Burmeister's authority. The figure given by Herbst is more like *M. brachiata*, but this author's description is almost useless. There is very little doubt, however, that it is the *M. maritima* of Castelnau.

ÆGOSTETHA BRACHIATA, n. spec.

Male: Black, the elytra chestnut-red; clypeus straight laterally, truncate in front but with the outer angles rounded, half as long as broad, scrobiculate, suture somewhat arcuate, frontal part scrobiculate but not as broadly as on the clypeus; club of antennæ extremely long, strongly curved; prothorax twice as broad as long, strongly slanting laterally from the apical part for one-third of the length, and slightly thence to the basal angle which is sharp, marginate all round, very slightly convex, and having a somewhat deep longitudinal impression along the outer margin, covered with nearly contiguous, round, deep punctures, with the intervals somewhat raised in the posterior part, and a median longitudinal smooth line, slightly raised, and obliterated at both ends, the margins bear traces of a band of appressed, flavescent hairs, denser and thicker laterally; scutellum ogival, but somewhat rounded at the tip, closely foveolato-punctate and very densely pubescent along the base; elytra slightly broader than the basal part of the prothorax, but with the basal angles very broadly rounded, and the humeral callus very distinct, a little ampliated at a short distance from the shoulder, and nearly of the same width thence to the rounded posterior part, covered with moderately broad, irregularly yet closely set punctures the intervals of which are somewhat coriaceous, especially laterally, and having in addition to the plain sutural stria two geminate ones on the disk, and an elongated impression under the humeral callus, each puncture bears a very minute hair almost always obliterated, but less so along the margins and the suture, the outer margin has a row of equi-distant somewhat stiff bristly hairs; pygidium very closely punctured, the sculpture, however, is hidden by a coating of dense, flavescent appressed hairs; the abdomen has a less dense coating

of similar hairs, and all the segments are very closely punctured; the pectus is very densely pubescent, the pubescence is long and flavescent; anterior tibiæ tri-dentate outwardly, basal tooth distinct but not deeply incised, no inner spur, tarsi of intermediate legs as long as the tibia or even a little longer.

Female: Of a more massive build than the male; head and prothorax black, elytra chestnut-red, legs piceous, abdomen and pectus reddish; clypeus strongly arcuate in front almost from the base, suture deep, transverse; prothorax of the same shape as the male, but covered on the discoidal part with irregularly set foveate punctures, and smaller and more closely set ones along the sides, in the centre of the anterior part there is a narrow, shallow groove; scutellum sculptured as in the male but much more broadly rounded at the apex; elytra much more dilated laterally from near the humeral part, much more coarsely punctured, more coriaceous and with the dorsal striæ more distinct; propygidium, pygidium, and abdomen clothed with greyish hairs as in the male, the pubescence is very much less dense and shorter on the pectus; the tarsi of the intermediate and hind legs are only half the length of the tibia, the tri-jointed club of the antennæ is thick, and about half the length of all the other joints taken together, the sixth and seventh joints are nodose, the eighth broadly dilated at the tip; the abdomen is very convex.

Length 19½–23½ mm.; width 10½–13½ mm.

Hab. Cape Colony (Cradock, Barkly West).

Ægostetha longicornis, Fabric.,
Ent. Syst., i., 2, p. 160.

Male: Black, with the elytra brownish-red, legs black; antennæ and palpi chestnut-red; upper side glabrous except for a fringe of flavescent hairs along the base; clypeus sub-orbicular, with no outer angles, and with the anterior margin very slightly reflexed, plane, having an extremely faint, very often nearly obliterated clypeal suture, closely and somewhat roughly punctured like the head; prothorax strongly narrowed obliquely laterally from slightly past the median part to the apex, and sinuate from beyond the middle towards the basal angle which is sharp, broader at the base than at the median part, deeply and closely punctured, and having a median longitudinal groove-like impression in the anterior part; scutellum deeply punctured; elytra sub-parallel and having on each side two somewhat faint costules, covered with deep, slightly irregular punctures separated

by raised intervals giving them a coriaceous appearance; pygidium vertical, covered like the abdomen with a flavescent, short pubescence; pectus densely hairy; antennal club tri-jointed, the joint preceding the club very briefly laminate, and in some examples little more than aculeate.

Female unknown.

Length 13–15 mm, ; width 7–8 mm.

Hab. Cape Colony (Port Elizabeth).

Gen. MACROPHYLLA, Hope,
The Coleopt. Man., 1837, i., p. 103.

Mentum longer than broad, straight laterally, deeply emarginate in the anterior part, and very densely hairy; last joint of labial palpi a little longer than the intermediate one which has the shape of an inverted cone and is either sub-cylindrical or swollen outwardly; maxillæ fairly robust, upper lobe more or less bluntly bifid at the tip, inner lobe nearly of the same length, and ending in a third tooth; apical joint of maxillary palpi not quite as long as the two preceding taken together, fusiform, slightly impressed outwardly towards the basal part; mandibles robust, concave, and with the apical part laminate, chisel-like, strongly striate inwardly, and having a molar tooth; labrum robust, vertical, deeply and broadly incised; clypeus short, either semicircular or truncate and with the margin scarcely reflexed, head simple not carinate laterally above the eyes which are large and divided in front by a conspicuous canthus; antennæ 10-jointed, the long, curved club consists in the male of five parallel, laminate joints, fifth joint also more or less briefly laminate; in the female the club is tri-jointed, thick and about half the length of the pedicel, the seventh joint is broadly dilated at the tip, and the fifth and sixth are nodose; prothorax broader than long, moderately convex in the posterior part, ampliated laterally in the middle, and straight thence to the moderately rounded basal angle, base deeply sinuate and ciliate; scutellum cordate; elytra as broad at the base as the prothorax, slightly ampliated laterally past the middle, and abruptly rounded behind, only moderately convex, pubescent or nearly glabrous and covering the greater part of the propygidium; pygidium sub-vertical or vertical; abdominal segments free in both sexes, very convex in the female; legs robust, anterior tibiæ with or without an inner spur, plainly tri-dentate outwardly, the posterior ones alone bear a very faint, oblique ciliated ridge on the outer face and are moderately dilated at the apex, and the two spurs are sharp in the male; they

are much more broadly dilated in the female, in which sex the transverse ciliated ridge is very plain on both the intermediate and the posterior tibiæ, and the apical spurs of the latter are blade-like and conspicuously dilated; tarsi very little longer than the tibiæ, the joints of nearly equal length; claws long, curved and having a sub-vertical, slightly hooked tooth set in both sexes close to the basal part which is not dilated, the inner tooth is longer than the outer.

The female is of a much heavier build than the male, and the elytra are considerably more convex and more broadly ampliated; the antennal club is thick, ovate, and the apical joint shorter than any of the other four.

There is considerable doubt as to the type of this genus as founded by Hope; the species which he mentions, *i.e.*, *Macrophylla longicornis*, Hope, has not been described, and is not identical with *Melolontha longicornis*, Fabr., the antennal club of which is only tri-jointed.

Key to the Species.

A². Fifth joint of antennæ laminate, moderately long.

B². Anterior tibiæ without an inner spur.

C². Upper side glabrous.

D². Totally testaceous-red.

Clypeus blunt in front and with the outer angles broadly rounded, suture indistinct; punctures on the prothorax fine, shallow .. .. *capicola.*

Clypeus semicircular in front, suture indistinct, punctures on the prothorax deep .. .. *natalensis.*

D¹. Head and prothorax black, elytra testaceous or chestnut-brown.

Clypeus semicircular in front, suture obliterated .. *nigricollis.*

C¹. Upper side pubescent.

Clypeus truncate in front, concave, separated from the frontal part by a suture; elytra and prothorax densely pubescent .. .. *pubens.*

A¹. Fifth joint of antennæ laminate, very long.

B¹. Anterior tibiæ with an inner spur.

Clypeus truncate in front with the angles rounded, plane, separated from the head by a transverse keel obliterated in the middle .. .. *maritima.*

MACROPHYLLA NATALENSIS, n. spec.

Entirely testaceous-red, shining, and glabrous on the upper side except for a thick fringe of flavescent hairs along the base, and a

finer one along the outer margin of the elytra; clypeus parabolic, clypeal suture hardly visible, covered, like the head, with closely set, deep, somewhat rounded punctures; prothorax gradually narrowed laterally from the blunt angular basal part to the apex, and not sinuate in the posterior part, distinctly sloping in the anterior, having in the front part of the disk a somewhat broad median elongated impression and covered with round, fairly deep punctures not very closely set; scutellum hardly punctate; elytra a little narrower at the base than the base of the prothorax, somewhat sinuate laterally in front of the median part, having two fairly distinct costules, and covered with deep, round punctures separated by an interval narrower than their diameter; antennal club 5-jointed, the joint preceding the club very briefly laminate; pygidium vertical, and, like the abdominal segments, very slightly pubescent; pectus with a very dense fulvous pubescence.

Female unknown.

Length 14 mm.; width 8 mm.

Hab. Natal (Maritzburg).

Macrophylla capicola, n. spec.

Similar in build and colour to *M. natalensis*, also glabrous on the upper side, but differing in the shape of the clypeus which is nearly straight in front but has the outer angles broadly rounded, the clypeal suture is weakly indicated; the basal angles of the prothorax are sharper; the punctures on the head are much finer, those on the prothorax and elytra are much shallower, and the latter are scarcely coriaceous; pygidium vertical, briefly pubescent; pectus with a very dense and long flavescent pubescence.

Female unknown.

Length 23 mm.; width 10 mm.

Hab. Cape Colony (Transkei, Fort Beaufort).

Macrophylla nigricollis, n. spec.

Black, with the elytra reddish-brown or chestnut-red, glabrous on the upper side, except along the base of the prothorax and the outer margins of the elytra which are sub-parallel; clypeus parabolic, suture obliterated or hardly visible, deeply and very closely punctured, the punctures slightly more closely set than on the vertex; antennal club 5-jointed, the joint preceding the club laminate but varying in length, and occasionally very small; prothorax slightly sinuate laterally in the posterior part, with the basal angles rounded, impressed longitudinally on the front part of the disk, moderately

sloping in the anterior part, the punctures somewhat fine and separated by an interval equal to their own diameter; scutellum punctate; elytra coriaceous, the punctures deep, somewhat broad, the two costules on either side distinct; pygidium sloping, very slightly pubescent like the abdominal segments; pectus clothed with a very dense light fulvous pubescence. The upright teeth of the maxillæ are somewhat sharper in this species than in the others.

Female unknown.

Length 16–17 mm.; width $8\frac{1}{2}$–$9\frac{1}{2}$ mm.

Hab. Cape Colony (Riversdale).

MACROPHYLLA PUBENS, n. spec.

Fuscous, elytra and antennæ chestnut-brown; head and prothorax clothed with a dense, short, appressed, light fulvous pubescence, elytra also clothed with a very short, dense pubescence; clypeus concave, straight in the anterior part and also laterally, and with the outer angles only very slightly rounded, suture distinct, both the head and clypeus are covered with fine, very closely set punctures; prothorax plainly sinuate laterally in the posterior part, and with the basal angle sharp, covered like the head with very fine and closely set punctures; scutellum very finely punctured and densely pubescent; elytra sub-parallel, very finely punctured and having on each side three or four somewhat plain striæ in addition to the juxta-sutural one; the abdomen is missing in the two examples which I have examined; pectus clothed with a long and very dense flavescent pubescence; antennal club 5-jointed, joint preceding the club laminate and moderately long.

Female unknown.

This species closely resembles *M. ciliata*, and is likewise pubescent on the prothorax and elytra, but it is larger and can easily be distinguished by the 5-jointed, instead of 3-jointed antennal club.

Length 27 mm.; width 14 mm.

Hab. Cape Colony (exact locality unknown).

MACROPHYLLA MARITIMA, Burm.,
Plate XLIV., fig. 9.
nec. *M. maritima*, Casteln.,
Handb. d. Entomol., iv., 2, p. 447.

Male: Fuscous-brown with the elytra chestnut-brown, the head

and also the sides of the prothorax have a very short, somewhat greyish, inconspicuous pubescence, the elytra are glabrous; the clypeus is straight in front with the outer angles moderately rounded, the suture is sub-carinate laterally and almost obliterated in the centre, and the whole head is very finely and very closely punctured; the prothorax is as finely and as closely punctured as the head and has a plain longitudinal groove in the anterior part; scutellum very finely punctulate; elytra sub-parallel, somewhat coarsely punctured, plainly coriaceous, and with three fairly distinct striæ on each side, in addition to the sutural stria; pygidium sloping and clothed with a very short appressed pubescence; abdomen with a similar pubescence; pectus clothed with a dense greyish-flavescent and long pubescence; antennal club 5-jointed, the fifth joint of the pedicel is laminate and one-fourth the length of the club, the fourth is very angular, and the third bead-like, but also slightly aculeate in the centre.

Female: More massive than the male, and with the elytra deeply sinuate laterally in front of the median part, and conspicuously ampliated thence; the clypeus has the outer angles more broadly rounded than in the male, the suture is not interrupted in the middle, nor carinate laterally, and the anterior frontal part is deeply depressed; the punctures on the prothorax are deeper and broader, and the median impressed line is continued further towards the base; the elytra are not so coriaceous, the punctures are equally deep but rounder, the dorsal striæ are obliterated, and the sutural one ill-defined; the pubescence on the pygidium and under side is the same as in the male, the posterior tibiæ are broadly dilated, and the spurs also broadly dilated, and spear-shaped; there are wings under the elytra; the club is 5-jointed, fairly long, but thick, ovate, and with the two apical joints, especially the last one, shorter than any of the other three.

Length 31–33 mm.; width 16–20 mm.

Hab. Cape Colony (Graham's Town).

PLEIOPHYLLA, n. gen.

Buccal organs of *Macrophylla* and *Ægostetha*, which it closely resembles, the anterior tibiæ are also tri-dentate outwardly and have no inner spur, the antennal club, however, consists of six long, curved, laminate joints, and the fourth joint of the pedicel is also similarly laminate but moderately short; the inner tooth under the anterior claws is very long.

Pleiophylla vestita, n. spec.

Fuscous, with the elytra and antennæ light chestnut-red, legs reddish-brown; clypeus and head with a few greyish hairs; prothorax and scutellum clothed with a dense, long, appressed flavous pubescence; elytra sprinkled with numerous greyish flavescent, short, appressed hairs; pygidium and abdomen with appressed, closely set hairs; pectus with a long, dense fulvous pubescence; clypeus straight in front and laterally but with the outer angles moderately rounded, and instead of a suture provided with a plain but only slightly raised transverse keel, it is scrobiculate, but the head is roughly punctured with the walls of the punctures sub-granulose; prothorax very closely punctured, and nearly straight laterally from the median part to the moderately sharp basal angle; elytra plainly coriaceous, a little ampliated laterally at a short distance from the humeral part, and having two plain dorsal striæ in addition to the sutural one; pygidium vertical; antennal club 6-jointed and with the joint preceding it laminate and moderately long; the lower tooth of the inner anterior claws is very long.

Female unknown.

Length 15 mm.; width 9 mm.

Hab. Cape Colony (Graham's Town).

Gen. EUCYLOPHYLLA, Waterh.,

Ann. Mag. Nat. Hist., vol. xv., 4th ser., 1875, p. 406.

Mentum rounded laterally but with the outer angles sharp, ligular part as long as the mentum, and slightly narrower, oblong, not sinuate at the tip, separated from the mentum by a moderately distinct suture; last joint of labial palpi robust, straight inwardly but broadly fusiform outwardly; maxillæ moderately robust, bifid at the tip, the outer apical tooth is somewhat concave and broader and more laminate than the inner one which is somewhat sharp and bears an inner fascicle of strong, stiff ciliæ, last joint of maxillary palpi swollen, fusiform, acuminate; mandibles robust, hollow, apical part trifid; clypeus strongly parabolic, long, separated from the head by a very plain, nearly transverse suture, vertical in front and with the upper margin moderately reflexed, the labrum is short but transversely broad and emarginate at the centre of the anterior part, frontal part simple, eyes moderately large; antennæ 10-jointed, second joint moniliform, third triangularly produced in the inner part, fourth to tenth very long, curved and forming the club which is as long, in the curve, as the prothorax; prothorax with the anterior angles rounded, broader at the base, the angles of which are

also rounded, than across the median part, base sinuate on each side; scutellum broad, as wide at the base as long, cordate; elytra broad, short, rounded at the shoulders, ampliated laterally but a little narrowed in the posterior part, very slightly convex, sub-costulate, and covering the greater part of the propygidium; pygidium triangular, sloping; pectus and prothorax densely pubescent; anterior tibiæ bi-dentate outwardly and without any inner spur; intermediate and posterior ones without an oblique carina, apical part of posterior tibiæ ampliated, the two spurs inserted in the inner part close to each other, but divaricating, compressed, and somewhat dilated, but sharp at tip (♂); hind femora short, swollen; tarsi longer than the tibiæ, slender, claws long, curved, the anterior ones have a conspicuously long, curved basal tooth under the inner claw similar to that of *Macrophylla*, but only a very small and basal one under the outer, whereas in the case of the intermediate and posterior legs this tooth, which is, however, smaller, is under the outer claw, the inner ones being merely dilated at the base.

EUCYLOPHYLLA LATA, Waterh.,
Loc. cit., p. 406.

Male: Body short, broad, fuscous with the elytra dark-chestnut and clothed with a very dense, short, appressed light fulvous pubescence, the head is moderately pubescent, the prothorax, pectus, and femora are clothed with a long, dense greyish-white pubescence, and the abdomen with dense appressed hairs of the same colour, club of antennæ fulvous; clypeus and frontal part covered with deep, round, somewhat large, nearly contiguous punctures which are, however, very much finer in the posterior part; prothorax gradually ampliated from the much rounded apical part to the rounded basal angle, and very closely and deeply punctured, the punctures somewhat fine and almost contiguous; scutellum with numerous setigerous punctures; elytra plainly ampliated laterally towards the median part, and narrowed towards the posterior, they have on each side four costules, and the outer margins are briefly ciliate; propygidium finely punctulate; pygidium sloping backwards, deeply and closely punctured, each puncture bearing a somewhat long, appressed greyish hair similar to those clothing the abdominal segments, but on the exposed part of the dorsal segments this greyish pubescence is longer and denser than on the ventral; the latter are very closely punctured.

In general facies this species resembles *Ægostetha brachiata*.

Length 17–17½ mm.; width 9½ mm.

Hab. Cape Colony (Cape Town).

TLAOCERA, n. gen.

Mentum broad, rounded laterally, not clearly separated from the broadly truncated, cone-shaped ligular part which is only half the width of the hollowed mentum; palpi inserted laterally, last joint swollen, nearly fusiform; maxillæ robust, upper lobe somewhat concave, laminate, emarginate at the tip, inner lobe very plain, sharp; maxillary palpi robust, apical joint swollen, strongly fusiform outwardly, less so inwardly; mandibles strong, arcuate at the tip, compressed inwardly on each side, not membranaceous at the base; antennæ 10-jointed, the sixth and seventh joints compressed, the latter projecting slightly in the inner part, club tri-jointed, as long as the pedicel, joints laminate, straight outwardly but ampliated inwardly; clypeus semicircular in front, slightly shorter than the head and separated from it by a strongly bi-sinuate, shallow suture, broadly perpendicular in front with the anterior margin much reflexed, labrum well-developod, deeply incised; prothorax little convex; plainly ampliated and rounded laterally in the middle, bi-sinuate along the base with the outer angles not sharp, but also not rounded, strongly depressed in the anterior part (male); elytra sub-parallel, not convex on the upper side, projecting beyond the propygidium and pygidium, the latter vertical; anterior tibiæ tridentate, and with a long inner spur; intermediate and posterior ones with an oblique carina on the outer side, apical part of the latter somewhat dilated, spurs long, but not very sharp; tarsi longer than the tibiæ, stiffly bristly at apex, claws long, curved, and having a juxta-basal, short, vertical tooth underneath.

I propose this genus for a singular insect, the prothorax of which is strongly impressed on the anterior part, and having a tubercle on the frontal part, in the manner of a ♂ *Pachypus;* the general facies, however, is not unlike that of *Achloa.*

Tlaocera saga, n. spec.

Male: Black, with the elytra and antennæ chestnut-brown, frontal part, prothorax, scutellum, pectus, and femora clothed with long, dense fulvous hairs; clypeus semicircular in front, straight laterally, concave, having a double row of deep punctures on the anterior part, but smooth along the suture, frontal part deeply punctured, each puncture bearing a long hair, plane, and having a sharp, compressed, somewhat longitudinal tubercle in the centre; prothorax broadly and somewhat deeply impressed in the anterior part, which is also a little more closely punctured than the posterior part where the punctures

are more scattered but equally deep; prothorax cordate, densely hairy; elytra nearly parallel, slightly broader at the base than the basal part of the prothorax, somewhat depressed in the dorsal part, and having on each side, in addition to the plain juxta-sutural stria, two dorsal geminate somewhat indistinct ones, they are punctulate and have faint longitudinal rows of wider but shallow punctures; pygidium deeply but not closely punctate in the basal part, nearly impunctate in the apical; abdominal segments somewhat compressed laterally.

Female unknown.

Length 12½ mm.; width 7 mm.

Hab. Cape Colony (Worcester), Hex River Valley.

KRASEOPHYLLA, n. gen.

Mentum broad, not distinctly separated by a suture from the short ligular part which is bi-impressed on the outer face and a little shorter and narrower than the mentum which is nearly twice as broad as long and sharply angular laterally, the ligula is briefly incised at the centre, the apical joint of the labial palpi is fusiform outwardly but not inwardly, and as long as the preceding joint; maxillæ robust, armed at apex with a sharply trifid upper tooth and a double inner one, these teeth are nearly straight; last joint of maxillary palpi fusiform, acuminate, moderately swollen, deeply impressed outwardly for half its length; mandibles somewhat blunt at apex, incised in the median part of the inner edge, and having a long, ciliate membrane; clypeus truncate in front and with the outer angles slightly rounded, separated from the head by a straight suture, somewhat narrow in the anterior vertical part which is not much attenuated, and with the upper margin moderately reflexed; labrum vertical and as wide as the vertical part of the clypeus, broadly incised as far as the base in the central part; eyes large, divided in front by a hairy canthus; antennæ 10-jointed, second joint transverse, compressed laterally, third–fourth cylindrical, equal, fifth–sixth compressed and angular on the inner side, seventh laminate, short, eighth–tenth laminate, very long, slightly inflexed and forming the club; prothorax attenuate laterally from the slightly ampliated median part, sinuate in the posterior part with the basal angle sharp, base sinuate; scutellum cordate; elytra slightly ampliated laterally at about the median part, hardly convex, costulate, covering the basal part of the propygidium; pygidium vertical; anterior tibiæ sharply tri-dentate and having a somewhat long inner spur; the oblique carina on the outer face of the intermediate and posterior ones is

obliterated, the apical part of the posterior is moderately broadly dilated, the two spurs are on the inner side, set somewhat close to each other, slightly compressed and moderately sharp; tarsi slightly longer than the tibiæ, the four basal joints are of nearly equal length, and those of the hind legs are somewhat short, the claws are long, strongly curved, and have a post-median, sharp, vertical tooth underneath.

The only species included in this genus has somewhat the appearance of a *Coniopholis* of the Melolonthini division, this likeness is still increased by the vestiture of the elytra and especially of the abdominal segments, where the appressed hair springing from each puncture is somewhat squamulose; the maxillæ have somewhat stronger teeth than the majority of the *Pachypodini*, with the exception of some species of *Macrophylla*.

KRASEOPHYLLA DISTINCTA, n. spec.

Fuscous, with the antennal club and the elytra chestnut-brown; head, especially the frontal part and the vertex, with erect, fulvous hairs; prothorax and pectus clothed with a very dense, long pubescence, femora also hairy; each puncture on the elytra bears a minute hair, and those on the abdominal segment a short, appressed, somewhat squamiform one; clypeus truncate in front with the outer angles slightly rounded and the margin somewhat raised, as long as the frontal part and divided from it by a plain suture, both parts are covered with deep, nearly contiguous, somewhat rough punctures; prothorax slightly convex in the posterior part and sloping in front, very closely and somewhat deeply punctured, but the sculpture is hidden by the long pubescence; scutellum foveolato-punctate, hairy; elytra with three costules on each side and a juxta-sutural stria, the two discoidal costules are distinct, but the other two are very weak, and the whole surface is irregularly punctate and somewhat coriaceous; the punctures on the pygidium and abdominal segments are very closely set.

Length 15 mm.; width 8 mm.

The habitat of this interesting species is not recorded, but I believe it to have been captured in the neighbourhood of East London, in the Cape Colony.

PASAPHYLLA, n. gen.

Mentum transverse, slightly sinuate laterally, divided from the ligular part by a plain transverse suture, and with the outer angle slightly rounded, ligular part slightly narrower at the base than the mentum, and with the basal angle sharp, very deeply emarginate

laterally, ampliated towards the apex which is straight with the outer angles slightly rounded; palpi inserted laterally, last joint swollen and fusiform and also somewhat acuminate outwardly, nearly straight inwardly; maxillæ with the upper lobe compressed, hardly concave, the upper part serrate, and with alternate stiff bristles and two plain teeth on the inner side next to the inner lobe which is very plain, rounded at the top, and briefly penicillate inwardly at the tip; labial palpi long, last joint slightly fusiform outwardly, nearly straight inwardly, the outer impression long and narrow; apical part of the triquetrous maxillæ laminate transversely, chisel-like, not membranous inwardly, head with a clypeal transverse keel, also plainly keeled laterally, and having another transverse prominence on the vertex, clypeus straight in front but slightly emarginate in the middle and with the margin reflexed, labrum broad, projecting a little forwards, deeply incised; antennæ 10-jointed, third joint slightly longer than the fourth, sixth and seventh compressed, laminate inwardly, the seventh, however, longer than the sixth, club tri-jointed and curved, the joints half as long again as the whole pedicel; prothorax ampliated laterally and rounded at the centre, posterior angles rounded; elytra sub-parallel but plainly sinuate laterally in the anterior part and covering only the basal part of the broad propygidium; pygidium small, vertical; anterior tibiæ tri-dentate and having a very small inner spur, intermediate ones with a rudimentary transverse ciliated keel, entirely wanting in the posterior which are moderately dilated at apex, with the lower spur somewhat sharp, and the upper narrowly blade-like; claws with a post-median vertical tooth underneath.

Evidently allied to *Kraseophylla*, but the mandibles have no molar tooth nor are they thickly membranous inwardly.

Pasaphylla libens, n. spec.

Testaceous or light chestnut-brown, club of antennæ flavous, head, prothorax, scutellum and pectus clothed with a very dense and long flavous pubescence; head deeply and broadly punctured, the punctures nearly contiguous, and separated from each other by a sharp wall, clypeus broadly rounded laterally but nearly straight in front and plainly emarginate in the centre, the raised part of the vertex is not keeled, but the clypeal carina is very distinct; prothorax closely shagreened, a little less attenuate laterally from the ampliated median part towards the base, the outer angle of which is rounded, than towards the anterior part; scutellum somewhat long, cordiform;

elytra wider at the base than the prothorax, sinuate laterally in the anterior part, a little ampliated past the middle, covered with fine irregularly disposed but somewhat closely set punctures each bearing a minute greyish-fulvous appressed hair, the juxta-sutural stria is distinct only in the anterior part, and there are two dorsal very faint costules on each side; propygidium broad, covered with fine asperous punctures each bearing a fine, short, appressed flavescent hair; pygidium small, vertical, punctured like the pygidium and also clothed with a short, appressed pubescence, the sides of the abdominal segments are similarly punctured and pubescent, the penultimate abdominal segment is nearly twice as broad as the ante-penultimate, and the legs are villose and irregularly foveolato-punctate.

Length 17–21½ mm.; width 8–9¼ mm.

Hab. Cape Colony (Carnarvon).

Gen. CYCLOMERA, Klug,

Monastb. Berl. Acad., 1855, p. 658.

Diaclaspus, Brensk., Berl. Ent. Zeit., 1896, p. 359.

Mentum broad, convex, bulging laterally with the outer angles sharp at their junction with the narrower ligular part which is short, deeply emarginate near the lateral insertion of the palpi, expanding a little towards the apex where it is broadly emarginate in the middle, separated from the mentum by a plainly triangular, somewhat indistinct suture; the two basal joints of the labial palpi short, broad, apical one strongly swollen on the outside; maxillæ moderately long, somewhat narrow, upper lobe laminate, rounded at the tip and emarginate and ciliate inwardly and also along the margin, inner lobe projecting beyond the base of the upper one as a somewhat sharp hooked tooth, and densely ciliate; maxillary palpi moderately long, last joint fusiform, nearly as long as the two preceding, which are of nearly equal length; mandibles triquetrous, not much curved at apex; head strongly declivous from the vertex to the apical part of the clypeus, and not quite as long as the latter, sharply carinate laterally for half the length, the vertex higher than the broad basal part and having a more or less sharply defined transverse prominence, frontal part separated from the clypeus by a groove the edges of which are sometimes slightly carinate, the anterior vertical part of the clypeus is not very broad, the anterior margin is reflexed, the labrum is strongly developed, transverse, not incised; the 10-jointed antennæ have a tri-jointed club as long as

the five preceding joints, the sixth and seventh are compressed and more or less sharply angular inwardly, the third is not longer than the fourth; prothorax a little ampliated and rounded laterally in the middle, sinuate in the posterior part and with the basal angles either sharp (*dispar*, *rikatlensis*) or moderately rounded (*delagoensis*), basal part moderately sinuate; scutellum cordate; elytra sub-parallel, somewhat depressed in the dorsal part, covering only the basal part of the propygidium, pygidium sloping; anterior tibiæ tri-dentate outwardly, and with a slender inner spur, no oblique carina on the outer part of the intermediate and posterior ones, the latter are dilated at the apex, the spurs are compressed, the upper one is either broadly rounded (*rikatlensis*) or blunter than the lower, the tarsi are long, slender, bristly at the apex of the joints, and also beneath in the case of the posterior ones, the basal joint of which is not longer than the one following, but plainly wider; claws long, slender, somewhat widened at the base and having a post-median, short, vertical tooth; membranaceous hinge of the ultimate abdominal segment very plain.

Although I have not seen Klug's type of the genus, the excellent figures given of *C. dispar* leaves no doubt as to the identity of the insect. Brenske's genus *Diaclaspus* founded on a species, *D. delagoensis*, is in all respects identical with *Cyclomera*.

I know only the males of the three species I include in this genus, but Klug has given the figure and description of what he believed to be the female of *Cyclomera dispar*. Like the females of the two species of *Macrophylla* known to me, it is more heavily built than the male, more convex, the femora are very short and thickened, the hind ones almost resembling a disk, the tibiæ are short, the hind ones even shorter than the femora, tolerably three-cornered, and nearly as broad as long at the apex, with the spurs strong, short, and bluntly pointed; the tarsal joints are very short, and the claw very small.

The species included in this genus are densely but somewhat briefly hairy on the prothorax and scutellum, and have a very long pubescence on the pectus; the elytra are shagreened and clad with a very short, appressed pubescence.

Key to the Species.

A². Frontal part simple.

B². Head with a clypeal not grooved keel.

C². Clypeus rounded in front.

Keel very high, seventh antennal joint compressed and acuminate inwardly .. .. *dispar.*

Keel moderately high, sixth antennal joint compressed and acuminate, seventh laminate and one-fifth the length of the club .. .. *delagoensis.*

A¹. Frontal part plainly bi-impressed.

B¹. Keel plainly grooved.

Keel high, seventh antennal joint compressed and acuminate *rikatlensis.*

C¹. Clypeus acuminate in front.

CYCLOMERA DISPAR, Klug,

Peter's Reis. n. Mossamb., 1862, p. 256, pl. xv., figs. 2–3.

C. natalensis, Bohem., Insect. Caffr., ii., p. 81.

Male: Fuscous, with the under side antennæ and legs piceous, or fuscous with the sides of the prothorax the elytra and abdomen testaceous-red; head and clypeus covered with deep, almost contiguous punctures separated by sharp walls, and briefly pubescent, the punctures on the frontal part and on the vertex are almost scrobiculate, the latter is somewhat densely pubescent, the ledge on the vertex is plainer in some examples than in others, and there is also occasionally a faint longitudinal prominence in the centre of the frontal part; prothorax closely shagreened, densely hairy, the hairs flavous, rounded and ampliated laterally in the median part, sinuate in the posterior, and with the basal angles distinct, base moderately sinuate and having a dense fringe of short hairs; scutellum cordate, densely pubescent; elytra parallel, slightly broader at the shoulders than at the base of the prothorax, depressed on the dorsal part, briefly ciliate along the outer margins, closely shagreened, clothed with a fine, very short appressed flavescent pubescence, plainly striate along the suture only, but having also some irregular, very faint longitudinal striæ or costules; propygidium finely aciculate; pygidium scabroso-punctate and faintly pubescent; abdominal segments, scabroso-punctate, briefly pubescent; pectus and femora clothed with a long and very dense flavescent pubescence; tibiæ villose; hind ones deeply punctate, upper spur lanceolate; basal tarsal joint longer than the following, and much wider; penultimate abdominal segment very much wider than the one preceding.

Female: "Differs from the probable male in colour and clothing, particularly in the structure of the legs, the antennal club is relatively smaller and dark; it is more convex, the colour is not black, but light chestnut-brown, the punctures are weaker, the hairy clothing reddish-yellow, and less distinct above than underneath and at the sides; on the head the keel which divides the vertex from the

frontal part is sharper than in the male; the prothorax is strongly convex in the middle, as broad as long and with the hind angles rounded; elytra more rugose than punctured, and not without indication of some imperfectly formed shallow grooves; femora and tibiæ short, thickened, covered with impressed punctures, lightly hairy, tarsal joints rudimentary and becoming still smaller towards the claw joint, claws also very small, but not without the tooth underneath."

Length 17½–20 mm.; width 8½–10 mm.

I have received from Durban two examples taken at the same time, one with fuscous, the other with testaceous-red elytra. The latter greatly resembles the figure of *C. castanea*, Kl.

Hab. Natal (Durban), Mozambique (Inhambane, teste Klug).

The description of the female is taken from Klug.

Cyclomera rikatlensis, n. spec.

Very closely allied to *C. delagoensis*, but a little more slender; the colour is the same, and so is the general facies, but it differs in the following points: the clypeus is plainly aculeate in the middle of the anterior part, the margin is more reflexed, and the median part of the surface is impunctate, the sides only have some sub-foveate punctures, the frontal part has a longitudinally raised prominence, the transverse ledge on the vertex is very distinct, and the surface is broadly foveate; the prothorax is very finely shagreened and plainly rounded and ampliated in the middle laterally, but it is sinuate in the posterior part with the outer angle sharp, the pubescence is the same as in *C. natalensis;* the elytra, however, are very coriaceous instead of being shagreened, and are glabrous except along the outer margins under the humeral and the rounded posterior parts where there are a few appressed, short, fulvous hairs in addition to the marginal fringe, which is rather long; legs as in *C. natalensis*, but the two basal joints of the hind tibiæ are not quite so broad, and the upper spur is more broadly dilated and rounded at the tip.

Length 20 mm.; width 8½ mm.

Hab. Mozambique (Rikatla).

Cyclomera delagoensis, Brensk.

Diaclaspus delagoensis, Berl. Ent. Zeit., 1896, p. 360.

Chestnut-red, with the elytra slightly darker; palpi and antennæ somewhat ferruginous, club sub-flavescent; clypeus and frontal part

briefly pubescent, the pubescence longer and erect on the vertex, prothorax and scutellum clothed with a long appressed flavescent pubescence, not dense enough to hide the sculpture; elytra also clothed with very minute appressed fine hairs, pectus densely pubescent; abdomen and pygidium with fine appressed hairs; head and clypeus covered with very closely set sub-scabrose punctures; prothorax ampliated and rounded laterally in the middle, a little less attenuated thence towards the distinct basal angle than in the anterior part, but not sinuate, outer margin plainly serrulate in the posterior part, base bi-sinuate and having a dense fringe of short flavescent pubescence, finely shagreened and with the appressed hairs somewhat silky; scutellum closely punctate; elytra almost cylindrical but somewhat depressed in the median dorsal part, very finely and closely shagreened, having faint traces of four costules on each side, the juxta-sutural stria is very often completely obliterated; the humeral callus is denuded and slightly punctate; propygidium and pygidium very closely aciculate, each aciculate puncture bearing a moderately long, fine appressed hair similar in length and texture to those clothing the finely aciculate upper side of the abdominal segments, the median part of the latter is deeply and closely punctured; femora deeply punctured, hind ones swollen, joints of hind tarsi, especially the broadened basal one very deeply punctate, upper hind spur lanceolate; penultimate abdominal segment broader than the antepenultimate, membranaceous hinge of the last joint conspicuous.

Length 19½–23 mm.; width 9¼–10½ mm.

Hab. Mozambique (Lourenço-Marquez, Maputa River).

CYCLOMERA CASTANEA, Klug,

Peter's Reis. n. Mossamb., 1862, p. 256, pl. 15, fig. 4.

"One single male example from Inhambane, resembling *Clitopa* in structure as well as in colour. Brownish-black, not without metallic lustre, and covered with long, reddish-yellow hairs as far as this colour extends, the elytra only are differently coloured, being brown, but instead of being densely hairy they have a few scattered hairs; the head is truncate in front, free of hairs up to the vertex, the clypeus is reflexed at the margin and coarsely punctate, separated from the frontal part by an impressed line, the posterior edge of the latter is swollen and raised, and the vertex is covered with longer, reddish-yellow hairs; the greatly projecting palpi and the antennæ are brown, excepting the club, which is black; prothorax densely and finely scaly; scutellum punctate; elytra punctate,

rugose between the punctures, the sides with a yellow-haired border; legs dark, excepting the femora which are paler and reddish-brown, the tarsal joints shiny brown, the tibiæ with rusty-brown hairs.

"Length $8\frac{1}{2}$ lin."

I have not seen this species. In the figure given by Klug the clypeus is a little more acuminate in front than in *C. dispar*, thus resembling that of *C. rikatlensis*.

GEN. PERICLITOPA, Brensk.,
Berl. Ent. Zeit., 1896, p. 358.

Closely allied to *Cyclomera* and only distinguished by the shape of the antennæ, the elongated tri-jointed club of which is either considerably or distinctly longer than the pedicel, and curved, and by the bi-dentate anterior tibiæ and the non-dilated basal joints of the hind tarsi. The head and buccal organs, the vestiture, shape, and claws are as in *Cyclomera*, the pygidium is also very sloping.

Key to the Species.

A². Clypeus separated from the head by a suture.

Suture very plain, clypeus transverse, not much arcuate in front; club of antennæ more than twice the length of the pedicel, and concolorous .. .. *fisheri.*

Suture almost obliterated, clypeus broadly rounded laterally; club of antennæ a little longer than the pedicel, inner joint black, like the pedicel, the other two flavescent .. .. *varicornis.*

All the joints concolorous, chestnut-brown .. .. *dubiosula.*

A¹. Clypeus separated from the head by a sharp carina.

Clypeus plainly narrowed laterally towards the slightly blunt apex, ledge on the vertex prominent; club of antennæ three times as long as the pedicel .. .. *gariepina.*

PERICLITOPA FISCHERI, Brensk.,
Berl. Ent. Zeit., 1896, p. 358.

Head and prothorax fuscous, anterior part of clypeus, under side, legs and antennæ brownish-red; elytra dark chestnut, clypeus with a very plain suture, transverse and with the outer angles very little rounded, margins strongly reflexed, it is roughly punctured and

briefly pubescent, the frontal part is somewhat scrobiculate, very plainly carinate laterally and densely hairy especially on the vertex; club of antennæ more than twice as long as the pedicel, the joint preceding the club sub-laminate; prothorax clothed with a very dense fulvous pubescence, finely shagreened, rounded laterally just a little before the median part; sinuate in the posterior the outer angle of which is sharp; scutellum covered with a pubescence similar to that of the prothorax; elytra very coriaceous, and covered with minute flavescent appressed hairs springing from every interstice, plainly sinuate laterally, depressed on the dorsal part, the juxta-sutural stria is well defined, and there is on each side two very faint dorsal striæ and two supra-lateral costules, the margins, including the sutural ones, have a fringe of densely set, short, fulvous ciliæ; propygidium, pygidium, and abdominal segments aciculate, each puncture bearing a fine somewhat flavescent hair, these hairs being much more dense on the upper side of the segments; pectus and femora covered with a very dense, long, light fulvous pubescence; intermediate and posterior tibiæ with a very rudimentary oblique carina, anterior ones bi-dentate outwardly but having also an indication of a third rudimentary basal tooth; hind tarsi somewhat bristly underneath; apical spurs of hind tarsi sharp.

Length 19 mm.; width 9 mm.

Hab. Transvaal (Lydenburg).

PERICLITOPA GARIEPINA, n. spec.

Piceous, with the antennæ fulvous, the long pubescence clothing the prothorax, the scutellum and the pectus is light fulvous; head and clypeus closely and roughly punctured, briefly pubescent, but the hairs on the vertex are long; the clypeus is plainly narrowed laterally towards the truncate apical part and is separated from the head by a very sharp keel, the ledge on the vertex is very plain and is united with the clypeal keel by a longitudinal median ledge; the club of the antennæ is three times as long as the whole pedicel and strongly curved, the joint preceding the club is produced into a short laminated process; prothorax finely shagreened, moderately rounded laterally, but slightly less narrowed towards the posterior than towards the anterior part, and with the basal angle rounded; elytra sub-parallel, but slightly narrower at the posterior declivous part than at the base, strongly coriaceous and with a minute, appressed greyish hair in each interstice; pygidial part with appressed, somewhat long hairs; abdominal segments more deeply

punctured than the pygidium, each puncture bearing a somewhat long, fulvous hair; some of the legs are missing in the only example that I have been able to examine, but the hind tibiæ have no traces of an oblique carina, and the hind spurs are sharp.

Length 17 mm.; width 8 mm.

Hab. Cape Colony (Prieska).

Periclitopa varicornis, n. spec.

Black, with the elytra light earthy-brown, vertex of head, prothorax, scutellum, upper side of abdominal segments and pectus clothed with a long, dense, greyish pubescence; antennæ black with the seventh joint as well as the ninth and tenth, these last two forming part of the tri-jointed club, pale testaceous, the third inner joint of the club black like the pedicel, which is only a little shorter than the club itself; clypeus blunt in front and with the outer angles broadly rounded, somewhat short, not plainly separated from the frontal part by either a suture or a keel, the vertex has no distinct transverse ledge, the surface of the whole head is strongly shagreened and the hairs on the frontal part are very long; prothorax rounded laterally and with the posterior angles distinct but not sharp, finely shagreened; scutellum closely punctate; elytra sub-parallel but plainly narrower at the posterior part than at the base, very faintly costulate, finely shagreened and clothed with very short appressed hairs springing from each interstice; pygidium strongly sloping backwards, plainly punctulate, each puncture with a somewhat long greyish hair; anterior tibiæ bi-dentate outwardly; hind tibiæ without an oblique ridge, and not much dilated at apex, hind spurs sharp; claws reddish.

Length 13–13½ mm.; width 6–6¾ mm.

Transvaal (Lydenburg).

Periclitopa dubiosula, n. spec.

Closely allied to *P. varicornis* and differing mainly in the colour of the antennæ, all the joints of which are chestnut-brown; the pubescence of the head, prothorax, and pectus is greyish and equally long, but the elytra are slightly more roughly shagreened and chestnut-brown; the pygidium, under side, and palpi are also chestnut-brown.

Female unknown.

Length 15 mm.; width 7 mm.

Hab. Transvaal (Zoutpansberg).

Periclitopa erichsoni, Klug.

Clitopa erichsoni, Peter's Reis. n. Mossamb., 1862, p. 254, pl. xv., fig. 1.

"Resembles a *Rhizotrogus* of medium size, but is peculiar in colour. The upper side is dark brown, and with the exception of the clypeus densely punctured, the frontal part is excavated, sharply edged in front by a straight, prominent transverse keel, and divided from the vertex by a lower keel, the clypeus is smooth, projecting in an inclined direction, with the margin reflexed, the antennæ are reddish; the head and prothorax wrinkled, densely grey-haired, more lightly rugose and hairy on the elytra, which are of a redder colour; sternum and legs dark brown like the head and prothorax and similarly hairy; abdomen brownish-yellow, lightly rugose and hairy.

A single male, probably from Inhambane.

Length 7 lin."

I have not met with this species, which, however, is figured by Klug. The description of this author is unfortunately not complete enough to enable one to decide whether it belongs to *Clitopa*, *Periclitopa*, or *Cyclomera*. In the shape of the head with its clypeal and frontal transverse keels and the sloping clypeus it resembles some species of *Periclitopa* or *Cyclomera*. Judging from the figure, it differs from *Cyclomera* in the longer antennal club, and owing to the tibiæ being bi-dentate outwardly it should be included in the genus *Clitopa*.

Periclitopa brenskei, Brancs.,

Jahr. Ver. Trencs., xvi., 1897, p. 114, pl. iv., fig. 6.

"Piceous, pectus and thorax clothed with long greyish hairs, which are fulvous, shorter and dense on the vertex and mouth parts, clypeus divided from the vertex, ovate-transverse, roughly punctate and sprinkled with hairs, anterior margin broadly reflexed; antennæ piceous, club darker than the pedicel; thorax black, transverse, twice broader than long, rounded laterally, more attenuated in front than behind, posterior angles oblique, anterior more obliquely rounded, emarginate in front, bi-sinuate behind, roundly produced laterally in the median part, disk very closely punctate, the punctures sub-rugulose; elytra as broad as the thorax, prominent at the shoulders with the sides sub-parallel, singly rounded at apex, pal yellowish, with the lateral, apical, and sutural margins darker, densely punctate, with the punctures now and then sub-rugulose, and bearing short, greyish hairs, the dorsal part bears three very

obsolete raised lines, and the lateral margin is fringed with long ciliate hairs, especially towards the shoulders; pygidium in the shape of an elongated triangle, rounded at apex, more sparingly punctate than the elytra; pectus clothed with a long and dense pubescence, which is shorter and less dense on the prothorax; legs concolorous, pitchy black, tibiæ and tarsi with fine red setæ; femora compressed, hind ones dilated; anterior tibiæ strongly bi-dentate, third tooth extremely worn out, apical denticules not sharp, posterior tibiæ stronger at apex, tarsi elongate."

Length 15–18 mm.; width 7–9 mm.

Hab. Region of the Zambesi River (Boroma).

I have not seen the type of this species, which, according to Brancsik, is pronounced by Herr Brenske to be closely allied to *P. Fisheri*, Br. Brancsik's figure answers well to that of *Clitopa bohemani*.

Gen. PARACLITOPA, Waterh.,

Ann. and Mag. Nat. Hist., vol. xv., 4th ser., 1875, p. 407.

"Very close to *Clitopa*, but differing in the following particulars: Clypeus separated from the forehead by a strong line, completely rounded in front, with the margins reflexed. Forehead with a well-marked transverse arched keel. Antennæ 10-jointed; the first joint large, the second narrower and transverse, the third a little longer than broad, slightly narrowed at the base, the fourth shorter and with the internal apical angle slightly produced, the fifth shorter and produced into a short lamella, the sixth and tenth forming a moderately long-curved club. Elytra slightly narrowed towards the apex, and not covering the abdomen very perfectly. Anterior tibiæ tri-dentate."

Paraclitopa lanuginosa, Waterh.,

Loc. cit., p. 407.

"Fusco-griseous, pubescent; head piceous black, body testaceous underneath, antennæ flavous; head closely punctulate, margin of clypeus reflexed; prothorax twice as broad as long, convex, finely and closely punctulate, clothed with long testaceous hairs, sides and posterior angles rounded; elytra a little wider than the thorax and two and three-quarters as long, slightly narrowed towards the apex, covered with closely set asperous punctures, briefly pubescent, singly rounded towards the apex; pectus clothed with long testaceous hairs.

Length 6 lin.; width $2\frac{3}{4}$ lin.

Hab. Lake N'Gami."

This species is unknown to me. I am, however, informed by Mr. Waterhouse that it is " very near *Periclitopa varicornis*. but that it has yellow antennæ and abdomen, and the elytra are not quite so finely sculptured."

Gen. CLITOPA, Erichs.,
Nat. Ins., iii., 1847, p. 653.

Male: Mentum sub-orbicular or rounded laterally, incised and projecting along the base of the ligular part and separated from it by a plain suture, the ligular part is angular at the base, rounded laterally and attenuated towards the apex which is semicircular, the labial palpi are only bi-jointed owing to the basal one being fused with and sunk into the outer face of the ligula, set very obliquely, contiguous at the base, and with the upper part assuming the shape of a broad oblique condyle, on which the second joint is articulated, the apical joint is very strongly swollen outwardly and somewhat acuminate at the tip, but straight inwardly; the maxillæ are straight, somewhat dilated and truncated at the apex, hollowed inwardly, the basal joint of the maxillary palpi is inserted in the apical part in a line with the upper lobe which is slightly hollow, bluntly marginate and bearing three stiff setæ on the outer margin of the concave part, the inner lobe is hardly distinct, yet corneous, and not fasciculate; maxillary palpi long, second and apical joints elongated, the latter ampliated outwardly, straight inwardly; paraglossæ of the ligula in the shape of two contiguous, nearly oblong, hairless lobes, not projecting beyond the constricted part of the ligula; clypeus somewhat shorter than the head, and either divided from it by a distinct carina or a groove, concave, straight or little curved in front, broad in the anterior part and with the upper margin much reflexed; labrum broad, transverse, not emarginate; eyes large, frontal part not carinate laterally, nor transversely on the vertex; antennæ 10-jointed, the club as long as the pedicel and tri-jointed, third joint somewhat elongated, equal in length to the two following, sixth and seventh compressed, inner angle of the latter projecting greatly, sub-laminate; thorax regularly and moderately rounded laterally, and with the basal angle sharp, very strongly bi-sinuate at the base, clothed like the head with a very deep, more or less erect pubescence; elytra slightly but regularly ampliated along the outer margin from the humeral part to past the middle, and plainly narrowed thence to past the middle, depressed on the upper side, and covering the basal part of the propygidium, briefly but densely hairy, the hairs appressed;

pygidium triangular, truncate at the apex; abdominal segments, legs, and pectus densely villose; anterior tibiæ with two very long outer teeth, especially the apical one, and a very small inner spur; intermediate and posterior tibiæ with an entire, sharp, ciliate, oblique carina, apical part of the posterior not much dilated, spurs long, sharp; tarsi longer than the tibiæ, not bristly underneath, claws long, curved, with the base angular, and a small juxta-basal vertical tooth.

Female: Mentum moderately wide, broadly triangular at apex, and with the very short labial palpi inserted laterally, last joint very swollen, maxillæ straight, quite edentate, basal joint of maxillary palps very minute, second and third swollen at apex, fourth strongly fusiform, clypeus semicircular with the margin reflexed and slanting in front, shorter than the frontal part and separated from it by a high transverse keel (*C. præcalva*), frontal part with a plain lateral ridge, but no distinct transverse basal one; antennæ 9-jointed, club 3-jointed, ovate, last joint of pedicel laminate but very short; eyes very little exposed on the upper side, but facetted like those of the male; prothorax nearly twice as broad as long, not much attenuated in front, rounded laterally; scutellum very broad and long, sub-ogival at apex; elytra short, very widely ampliated in the posterior part the hind margin of which is straight, but moderately rounded laterally, not much convex and not covering completely the propygidium, and wingless; pygidium broadly triangular, vertical; abdominal segments projecting beyond the margin of the elytra, but very deeply sutured; metasternum somewhat narrow; anterior tibiæ tri-dentate, the upper tooth very small, the lower one very long, tarsi very short, claws also short, weak, simple, hind tibiæ with faint traces of an oblique ridge in the intermediate only, not on the hind ones which are moderately ampliated at apex, hind spurs not much thickened.

From the description of the generic characters of the two sexes it will be seen how different they are from each other. Mr. G. A. K. Marshall, who has discovered both sexes of one species in the Matoppos, near Buluwayo, has sent me the following account of its capture: "The male was flying about in some numbers in the hot sunshine close to the ground over a limited area, and while we were catching them, Sheppard called out to me that he had found about a dozen coming out of a hole in the ground. Shortly afterwards I found a similar bunch of them, but instead of coming out of the ground I found that they were burrowing into it after a single female. On digging her out I was very much surprised to find how utterly different she was from the males in every way. At first I thought I must be mistaken in my conclusions, but after a little

search we found several more, and there can be no doubt whatever as to the relationship of the two forms. So far as I could ascertain, the female does not come out of her burrow at all, but merely sits in it with the end of her abdomen exposed; the passing males soon collect round her, there being usually from six to twelve, and they buzz about and tumble over one another in a most aimless manner. After a few moments the female begins to descend into the earth, and the males dig frantically in order to follow her. By this time most of them will have flown, and only three or four which have got the best start continue digging. I do not know to what depth they finally go, though in one case I found a female about four inches down with two males still following her. The flight of males only lasted three days. In the case of *Clitopa rufiventris* the flight was evidently just over, for we only found the males resting on the herbage."

I have taken *Clitopa bohemani*, Blanch., as the type of the genus, but I am not at all sure that it was founded on that species by Erichson. If, as I am inclined to believe, it was on the species from Mozambique described eight years afterwards by Klug under the name of *C. erichsoni*, the genus would be identical with *Periclitopa*, Brensk. I am afraid, however, that this point can never be elucidated.

Key to the Species.

A². Clypeus separated from the frontal part by a suture.

B². Clypeus and frontal part clothed with erect, stiff, bristle-like hairs.

*a*². Elytra very plane, slightly broader across the base than across the apex.

Elytra testaceous, with the suture and outer margins fuscous, the pubescence scattered, fine .. .. *bohemani.*

Elytra chestnut-brown, outer margin slightly fuscous, the pubescence somewhat dense.. .. .. *zambesina.*

*a*¹. Elytra not very plane, not broader across the base than across the apex.

Body piceous or piceous-brown; elytra concolorous .. *rufiventris.*

A¹. Clypeus separated from the frontal part by a keel.

B¹. Clypeus partly or wholly bare.

Clypeus with an inner fringe of stiff hairs along the margin only; elytra with five bands of greyish-white hairs .. .. *præcalva.*

Clypeus bare; elytra with minute, hardly visible hairs .. *nitidipennis.*

CLITOPA BOHEMANI, Blanch.,

Catal. Coll. Entom., 1850, p. 164.

Head, prothorax, scutellum, and pygidium fuscous-brown, elytra bright testaceous with the suture and the outer margins fuscous, under side and legs reddish-brown; antennæ and palpi light ferruginous red; head and clypeus coarsely punctate, the latter a little ampliated laterally at the anterior part, straight in front with the angles rounded, a little shorter than the head, not separated from the frontal part by a suture but having instead a smooth, narrow, impunctate, transverse band, difficult to distinguish owing to the dense covering of upright fulvous hairs, which, however, are replaced on the anterior part of the clypeus, especially on the margin, by stiff ciliate ones; prothorax hardly convex and very sloping, covered with almost contiguous punctures, emitting each a very long decumbent or appressed flavescent hair, forming thus a very dense pubescence; clypeus as pubescent as the prothorax; elytra a little broader at the base than the prothorax, covered with irregular punctures each bearing a very short appressed greyish hair, the juxta-sutural stria is distinct, and there are on each side two fairly well marked discoidal costules and a plainer supra-marginal one, the humeral callus is impunctate, and the elytra are broader at the base than across the posterior declivity, not distinctly ampliated laterally in the middle, and the outer margins have a fringe of not closely set setæ; pygidial part closely aciculate and with appressed greyish hairs; abdomen, pectus, and femora clothed with a long, very dense greyish pubescence with a slightly flavescent tinge.

Length 15–16 mm.; width 8–8½ mm.

Hab. Southern Rhodesia (Upper Limpopo River).

CLITOPA ZAMBESINA, n. spec.

Resembles *C. bohemani*, but is larger and has a more depressed appearance on the upper side; the clypeus and head are clothed with similar hairs, but the clypeus is very plainly sinuate in front, the prothorax is also sloping but the pubescence is more fulvous; the chestnut-brown elytra are much more closely punctate, and are therefore more coriaceous and the appressed hairs more numerous, they are plainly broader at the base than across the posterior declivous part, the discoidal depression is very distinct, and they are not costulate on both sides, the juxta-sutural stria is obliterated past the median part; the pygidial part and under side are as in *C. bohemani*, but even more densely hairy.

Length 18 mm.; width 10 mm.

The shape of the genital armature of the male closely resembles that of *C. bohemani*, differing only in the angle of the curvature. It is quite possible that this species might prove to be only a local variety of *C. bohemani*.

Hab. Southern Rhodesia (between the Limpopo and the Zambesi Rivers).

Clitopa rufiventris, Bohem.

Onochæta rufiventris, Boh., Insect. Caffrar., ii., p. 82.
C. capra, Arrow, Ann. and Magaz. Nat. Hist., 1892, vol. iv., p. 99.

Piceous, with the palpi and often the antennal club piceous-red at apex; the head and prothorax have the same shape and the same vestiture as *C. bohemani*, the colour of the pubescence is as a rule greyish, but occasionally it is light fulvous; the elytra are not so depressed in the dorsal part nor are they distinctly narrower across the posterior declivous part as in *C. bohemani* and *C. zambesina*, they are also much more shagreened than in these two species, and the greyish appressed hairs springing from the interstices form a denser covering; some examples have four plain costules on each side, others not so many, but the supra-marginal one is never wanting; the under side is very densely villose, the villosity greyish-white.

Length 15–16½ mm.; width 7½–9 mm.

Hab. Southern Rhodesia (Buluwayo, Limpopo River, Salisbury).

Clitopa præcalva, n. spec.

Male: Chestnut-brown, with the median part of the prothorax fuscous-brown, palpi and pedicel of antennæ light chestnut, club darker than the pedicel, the posterior part of the head, the prothorax, and scutellum, the pygidium and under side are clothed with a very long pubescence, greyish-white underneath, but having a slight flavescent tinge on the upper side, the elytra have each five longitudinal stripes of appressed greyish-white hairs; clypeus deeply excavated, separated from the frontal part by a slightly bi-sinuate plain keel, and having a fringe of erect, bristle-like hairs along the semicircular margin, but in the inner part the frontal part is densely hairy, the hairs long and not bristle-like, the clypeus is impunctate except along the margin, and the frontal part is deeply and coarsely pitted; prothorax shaped as in the other species and also closely punctate, the punctures along the base being very closely set; elytra coriaceous, not very plane, and slightly wider across the apex than across the base, the hairs forming the bands are long and appressed,

and the outer margins have a fringe of very long sub-ciliate hairs; in the male the antennal club is slightly shorter than the pedicel.

Length 12–13 mm.; width 7 mm.

Female: Reddish-brown, shiny; frons and clypeus deeply pitted, the punctures almost foveate on the semicircular clypeus the margin of which is much raised and has an inner row of fairly long, upright, sub-fulvous hairs, the frontal keel is highly raised, the frontal part is more densely hairy, and although not carinate along the base there is a very faint elevation there; prothorax twice as broad as long, rounded and ampliated laterally in the middle, moderately convex, fringed on the sides with very long, fine hairs, very sparingly punctate even on the sides, where each puncture bears a long setose hair, and having a fringe of shorter ones in the median part of the base above the scutellum which is large, moderately acuminate at apex, and closely punctulate; elytra gradually ampliated from near the humeral part to three-fourths of the length, and hardly narrowed thence to the posterior angle which is not broadly rounded, they are moderately convex, very little dehiscent behind, cover the greatest part of the propygidium, are shiny, irregularly sub-punctulate in the anterior part, coriaceous behind, have extremely faint traces of two dorsal striæ, and are fringed laterally and behind with very long hairs, but are otherwise glabrous; pygidium very broad at the base, triangular, vertical, deeply and closely punctate, each puncture being briefly setigerous, and fringed with long hairs laterally; abdomen, pectus, and legs clothed with very long, greyish hairs.

Length 10½ mm.; width 7 mm.

Hab. Southern Rhodesia (Matoppos).

CLITOPA NITIDIPENNIS, Arr.,

Annals and Magaz. Nat. Hist., vol. ix., 1902, p. 100.

"Bright testaceous, head, prothorax, and scutellum clothed with pale flavous hairs, which are extremely minute, hardly visible on the elytra, but long and dense on the rest of the body; clypeus small, semicircular, bare, shining, roughly punctate, separated from the frontal part by a strongly elevated keel, this frontal part as well as the whole posterior part is clothed with long and dense setæ; antennæ reddish-testaceous, the second, fourth, fifth, and sixth joints are nearly equal, the third a little longer, the club tri-jointed and longer than the pedicel; prothorax short, with the sides regularly curved, strongly contracted in the anterior part, less so behind, hind margin lobate in the middle; elytra moderately broad, shining, very minutely hairy, the hairs flavous, the sutural and other costæ obso-

lete, the sutural angles separately arcuate; pygidium small, not densely pilose; anterior tibiæ with two long teeth distinctly separated, and having a slender inner spur.

Length 18·5 mm.

Hab. Portuguese East Africa.

This species is rather longer than *C. rufiventris* (*C. capra*, Arr.), but the thorax is shorter. The posterior part of the head is covered with erect setæ, the clypeus being naked, shining, and very narrow. The antennæ, like the elytra and the lower surface of the body, are of a bright reddish-testaceous colour, and the antennal club is long. The legs and claws are of the normal form."

I have not seen this species, which differs from *C. rufiventris* in the narrow, naked, shining clypeus, divided from the frontal part by a highly raised keel. This last character is also found in *Synclitopa*, Kolbe.

Gen. ACHELYNA, Erichs.,
Nat. Ins., iii., 1847, p. 653.

Mentum long, sub-parallel laterally, faintly separated by an impressed line from the ligular part which is very short and deeply and broadly sinuate at the apex, the cotyloid cavities of the labial palpi are juxta-lateral, but set on the outer face of the ligular part, the three joints are short, thick, the last one very swollen, turbinate, and sharp at tip; maxillæ robust, triquetrous, the upper lobe is broad, hollow, with the upper margin serrate and with four distinct spine-like teeth in the inner part, inner lobe obliterated; maxillary palpi long, joints robust, second ampliated at the tip, third conical, apical one as long as the other two together, cylindrical, slightly truncate at the tip; clypeus as long as the head, arcuate in front, triangular in the anterior vertical part, and slightly impressed in the middle at the apex, labrum obliterated, frontal part simple, without a clypeal suture; antennæ 10-jointed, the seven ultimate joints are laminate and form a long, not curved, club, the third joint is nearly equal in length to the basal one, but more slender and somewhat broadly triangular in the inner side; prothorax moderately ampliated laterally in the middle, but very little in the posterior part the angles of which are rounded; scutellum ogival; elytra slightly ampliated laterally past the median part, deeply punctured and sub-costulate and covering nearly the whole of the propygidium; pygidium very wide, convex, drawn forwards; abdomen and pectus villose, but the latter not very densely pubescent; anterior tibiæ bi-dentate outwardly, posterior ones with an interrupted, stiffly ciliate, diagonal keel,

tarsi longer than the tibiæ, hind ones not ciliate underneath; posterior half of claws broadened, the lobe-like process truncate at apex, anterior half slender, hooked.

Key to the Species.

Fuscous; elytra chestnut-brown; clypeus obliquely ampliated towards the anterior part .. .. *clypeata.*

Testaceous; clypeus straight laterally .. .. *testacea.*

ACHELYNA CLYPEATA, Burm.,

Handb. d. Entomol., iv., 2, p. 460.

Fuscous-brown, with the elytra, abdomen, and legs chestnut-brown; palpi and antennæ flavous; the frontal part bears long, fulvous hairs; the prothorax has a lateral fringe of similar hairs, and the pectus is only moderately hairy; clypeus slightly obliquely expanded laterally towards the broadly arcuate apical part with the margins strongly reflexed, covered, except along the anterior margins, with conspicuously asperous punctures bearing each a long cilia, the head is simple and punctulate; prothorax glabrous on the disk, moderately ampliate laterally, only slightly attenuate from the median part to the rounded posterior angles and covered with fine, closely set round punctures, the base is pubescent in front of the scutellum which is cordate, glabrous and faintly aciculate in the basal part; elytra sinuate laterally in front of the median part, slightly ampliated thence, and covered with somewhat deep but not broad, nearly equi-distant punctures, the juxta-sutural stria is very plain, and there are three somewhat faint ones on each side; the propygidium is almost entirely covered by the elytra, the pygidium is broad, convex, very much drawn forwards and has a fringe of very long, flavescent hairs; the abdominal segments are very hairy, and so is the inner part of the posterior tibiæ.

Female unknown.

Length 8 mm.; width 4 mm.

Hab. Transvaal (Johannesburg).

ACHELYNA TESTACEA, n. spec.

Shaped as the preceding species, but a little larger; the colour is testaceous-red, and the elytra reddish-yellow, the hairs on the head and along the prothorax are of a lighter yellow, the sculpture is nearly the same, but the asperous punctures on the basal part of the clypeus are not quite so conspicuous, and the clypeus is straight

laterally instead of being somewhat obliquely dilated towards the anterior part; the punctures on the elytra and also the striate costules are similar, but the marginal fringe of hairs is dense and somewhat long.

Length 9½ mm.; width 5 mm.

Hab. Transvaal (Lydenburg).

PLEISTOPHYLLA, n. gen.

Mentum narrow, parallel, twice as long as broad, apical part plainly sinuate at the centre and with the outer angles slightly rounded, no visible suture between the mentum and the ligular part, labial palpi juxta-lateral, small, apical joint cylindrical; maxillæ somewhat weak, armed at apex with five transversely set, sharp, not hooked teeth, labial palpi long, last joint a little longer than the two preceding taken together, nearly cylindrical, but slightly oblique outwardly at tip, and having there a short, longitudinal impression; head long, parallel laterally, clypeus very short, parabolic, separated from the frontal part by a semicircular suture, vertical in front, somewhat broadly but briefly triangular there and plainly but not deeply notched at the apex, upper margin reflexed; labrum entirely obliterated; eyes very large, very bulging, completely exposed to view from above, the canthus being most rudimentary, almost obliterated; antennæ 10-jointed, club 8-jointed, the last seven joints are very long, somewhat flexed outwardly, and normally set close to each other, but the structure of the one preceding (the third from the base) is very singular, for it is nearly as long as the basal one but much more slender, triangularly dilated at about the median outer part and emits there a laminate joint similar to those forming the club and only slightly shorter; prothorax short with the anterior angles very broadly and the posterior ones very little rounded, not ampliated in the middle, not very convex on the disk, and with the basal part not sinuate laterally, but slightly oblique on each side of the middle; scutellum parallel, bluntly ogival at the tip; elytra parallel, with the humeral angles rounded, costulate, not very convex and covering the pro-pygidium; pygidium one-third broader than long, slightly convex (♂), sub-vertical; anterior tibiæ bi-dentate outwardly, intermediate and posterior ones with a stiffly ciliated oblique ridge reaching only half-way across, apical part of posterior tibiæ not broadly dilated, spurs long, sharp, set far apart and strongly diverging; tarsi long, slender, basal joint of hind ones as slender and very little longer than the one following, claws curved and having underneath a lobate, sub-quadrate

process truncate in front, occupying half the length of the claw, and with the other half curving above it nearly at right angles.

This genus is closely allied to *Achelyna*.

PLEISTOPHYLLA SINGULARIS, n. spec.

Head and prothorax brownish-red; elytra chestnut-brown, antennæ and under side pale testaceous, the whole of the frontal part and the outer and basal margins of the prothorax are densely villose, and the pectus and femora are clothed with a very long, dense, light fulvous pubescence; the whole of the head, the clypeus included, is covered with scabrose, nearly contiguous punctures; prothorax closely and finely punctured, glabrous, somewhat impressed in the median projecting basal part; elytra glabrous, but with a small fringe of hairs, nearly parallel and with the humeral angles rounded, deeply and somewhat coarsely punctate, and having on each side four costæ the inner one of which is more developed than the others; scutellum glabrous, punctate, and having a median raised line; pygidium sparsely aciculate and having a fringe of long hairs not set close to each other; abdominal segments with a similar fringe; anterior tibiæ bi-dentate outwardly.

Length $10\frac{1}{2}$–$11\frac{1}{2}$ mm.; width $5\frac{3}{4}$–6 mm.

Hab. Transvaal (Johannesburg).

GEN. TRICHIODERA, Burm.,

Handb. d. Entomol., iv., 2, 1855, p. 437.

Mentum wide, twice as broad as long, not incised laterally and partly fused with the ligular part which is sinuate on the sides, as broad as the mentum at the apex where it is broadly emarginate, with the angles rounded; labial palpi inserted on the outer face, tolerably massive, last joint swollen, ovate, acuminate; upper lobe of maxillæ curved and hollowed inwardly, chisel-like at the tip but briefly denticulate there, inner lobe inconspicuous, ciliate at tip; mandibles triquetrous, somewhat sharp at the tip and shaped there like the upper lobe of the maxillæ, that is to say chisel-like; last joint of maxillary palpi long, slightly curved, sub-fusiform outwardly, not much acuminate; head with a strong, slightly arcuate clypeal suture, and a finer one on the vertex, not carinate laterally above the eyes which are large, the clypeus is arcuate in front with the margin tolerably reflexed, the labrum is moderately narrow and incised in the centre of the apical part; antennæ 9-jointed, third joint longer than the fourth, sixth very short, laminate, club formed of

three parallel joints one-third longer than the pedicel; prothorax ampliated and rounded laterally with the posterior angles rounded, clothed with long hairs; scutellum sub-ogival, very hairy; elytra somewhat short, glabrous, without sutural stria or costules; pygidium much broader than long, sub-vertical; femora and pectus very densely hairy; anterior legs tri-dentate and with an inner spur, the four posterior ones with an entire oblique ciliate keel, the hind ones moderately dilated at the tip, the spurs sharp; tarsi longer than the tibiæ, claws greatly divaricating and cleft underneath in the manner of *Schizonycha*.

TRICHIODERA BICARINATA, Gyllenh.,
Schönh. Synon. Insect., i., 3; App., p. 82.

Testaceous-red, forehead, prothorax, scutellum, and pectus clothed with a dense, long, flavous pubescence, club of antennæ flavous; clypeus truncate in front and with the outer angles slightly rounded, narrower than the frontal part, separated from it by a slightly arcuate, sharp keel, sparingly punctate, frontal part very closely punctulate, divided from the vertex by a ridge somewhat obliterated in the centre, not carinate above the eyes; prothorax ampliated and rounded laterally, posterior angles rounded, basal part very strongly sinuate; elytra slightly wider at the base than the base of the prothorax, sinuate laterally and ampliated from about the median part, glabrous but having the outer marginal normal fringe of ciliate hairs, deeply and equally punctured, and having no costules or striæ, not even a juxta-sutural one; propygidium and pygidium almost impunctate, the latter somewhat convex towards the apical part, slightly drawn forward, and fringed with long hairs; femora very hairy; tibiæ faintly punctate.

The female is unknown to me. I have seen the type of this species which is in the Schönherr Collection in the Stockholm Museum.

Length 11 mm.; width 6 mm.

Hab. Cape Colony (Graham's Town, Fort Beaufort).

PSEUSTOPHYLLA, n. gen.

Mentum straight laterally for one-third of the length, thence narrowed obliquely towards the apex of the ligular part which is arcuate and fused with it, condyle of labial palpi narrow, long, quite lateral, labial palpi bi-jointed, basal joint truncate, short, second joint a little curved, tolerably cylindrical outwardly and moderately sharp at the tip; maxillæ wanting in my example, last joint of maxillary

palpi cylindrical; clypeus moderately long, separated from the frontal part by a sharp transverse keel, blunt in front with the outer angles rounded and the margins reflexed, slightly declivous in the anterior part, the labrum short, narrow, not incised, head plainly carinate above the eyes, frontal part with a moderately raised transverse ledge separating it from the vertex; antennæ 9-jointed, second joint nodose, third a little longer and narrower than fourth, which is shaped like an elongated obliquely truncated cone, fifth and sixth compressed but with their inner side projecting very little and fitting close against the three joints of the club, which are as long as the pedicel, but plainly spatulate; prothorax ampliated laterally and sub-aculeate in the centre, posterior angles rounded, base sinuate; elytra not broader at the shoulders than the base of the prothorax, but very clearly ampliated from the humeral part, covering half the propygidium, and with neither suture nor costule; anterior tibiæ tri-dentate outwardly, the basal tooth very weak, posterior and intermediate with an entire oblique ciliate keel, the posterior dilated at apex, and with the two spurs sharp; anterior tarsi somewhat short, posterior moderately long, closely ciliate underneath, basal joint much shorter than the second; claws short, three-toothed, the upper tooth is sharp and curved underneath, the median one rounded at the apex but somewhat curved like the apical one and not so long, and the sub-basal tooth is similar to, but slightly shorter than, the intermediate one; pygidium of the male as broad as long, somewhat drawn forwards.

PSEUSTOPHYLLA PRETORIANA, n. spec.

Testaceous, with the frontal part fuscous and the prothorax testaceous-red; clypeus sparsely punctate, labrum densely pubescent, clypeal keel very high, transverse; frontal part deeply and closely punctate and having a slight, median longitudinal raised line, sharply carinate laterally from the angle of the clypeal suture to the vertex the suture of which is very distinct, the head is glabrous except the base which has a broad fringe of short, appressed yellow hairs; prothorax convex in the posterior part, somewhat angulate laterally in the middle, sparingly ciliate laterally and along the base, glabrous on the upper side and covered with deep, round punctures separated by an interval narrower than their diameter, and having a plain median longitudinal impressed line; scutellum cordate, punctulate, nearly glabrous except the basal part; elytra plainly ampliated laterally at a short distance from the shoulders, slightly depressed

on the dorsal part, glabrous, but having an outer marginal, normal fringe of yellowish ciliæ, covered with closely set, equidistant round punctures, and having no costule or stria, not even a juxta-sutural one; pygidium as broad as long, sparingly punctate, fringed with somewhat long hairs, drawn inwards; abdominal segments and femora very hairy; pectus very densely pubescent.

Female unknown.

Length 9½ mm.; width 5½ mm.

Hab. Transvaal (Pretoria).

GAMKA, n. gen.

Mentum parallel, very deeply and broadly emarginate in the anterior part with the angles rounded, condyle of labial palpi almost lateral, elongated, sunk in the cavity and very short, like the second, the apical one moderately long, swollen outwardly, straight inwardly, obtuse at tip; maxillæ bearing a few rigid hairs along the inner margin, straight and laminate at the apex, but having one or two rigid setæ set at right angles to the upper margin, the inner lobe is seemingly fused with the upper, last joint of maxillary palpi longer than the other three taken together, and plainly fusiform; labrum sub-horizontal, somewhat long, vertical at apex and plainly emarginate in front; clypeus truncate in front, with the angles very little rounded, separated from the head by a fine keel, the latter without a transverse ridge on the vertex; genæ strongly developed, sub-parallel, eyes only moderately large; antennæ 10-jointed, club 6-jointed, arcuate, joints very long, laminate and all of equal length; prothorax with the anterior margin arcuate and not hairy, moderately convex and fringed laterally with long bristles, base slightly bi-sinuate, posterior angles rounded; scutellum ogival; elytra sub-cylindrical, projecting beyond the pygidium which is drawn in, abdominal segments very narrow, hind coxæ broad parallel, hind femora swollen, hind tibiæ not longer than the femora, broadly dilated at apex; tarsi long, slender, claws long, very slender, simple; anterior tibiæ bi-dentate outwardly, inner spur long, slender.

The small insect included in this genus differs from all the South African *Pachypodini* in the great horizontal development of the labrum; it is not unlike *Tulbaghia cereris* in general appearance, but is at once differentiated from the Tribe *Ablaberini* by the position of the spurs of the hind tarsi, and the presence of a labrum.

GAMKA MINUTA, n. spec.

Male: Head, prothorax, and under side reddish-brown, elytra pale testaceous, almost stramineous, with the suture narrowly infuscate; antennæ dark chestnut; labrum nearly half the width and half the length of the clypeus, margins of the latter plainly raised, the anterior one transverse, surface deeply pitted, that of the head also deeply pitted and bearing scattered, upright, flavescent hairs, clypeal keel sharp, vertex simple; antennal club of male longer than the head, labrum included, 7-jointed, but the inner joint is formed by the laminate elongation of the inner basal part of the fourth antennal joint, the remainder of this particular joint being compressed and looking as if supporting the base of the fan when the latter is folded or partially spread; prothorax slightly convex in the posterior part, rounded and ampliate laterally in the middle, with the basal angles rounded but with the apical ones sharp, and having a lateral fringe of long, bristle-like hairs, it is deeply and somewhat roughly punctate, the punctures being separated in the median part by an interval equal to their diameter; scutellum brownish, ogival, impressed at the base; elytra parallel, not much convex except in the apical part where they project beyond the strongly drawn-in pygidium, very faintly bi-costulate on each side near the suture, coarsely punctate, and with a lateral marginal fringe of equi-distant hairs extending to two-thirds of the length; margin of the punctate pygidium with a fringe of long hairs; pectus only moderately densely hairy; upper margin of intermediate and posterior tibiæ with two angular, bristly projections not continued as oblique ridges on the outer face of the tibia.

Length $5\frac{1}{2}$ mm.; width $2\frac{1}{2}$ mm.

Hab. Cape Colony (Kimberley).

AIPEIOPSIS, n. gen.

Mentum more than twice as long as broad, straight laterally, but tapering a little towards the apical part which is narrowed, truncated at the tip, nearly as broad as long, and divided from the mentum by a plainly triangular suture; labial palpi set in the outer face, joints thick, the two basal ones short, contiguous, apical one massive, subfusiform outwardly, nearly straight inwardly, not acuminate at tip; maxillæ long, straight, somewhat dilated towards the apex, and with the maxillary palpi inserted on the top, on a level with the obtuse, nearly obliterated, slightly hairy upper lobe, inner lobe also obliterated but ciliate; mandibles very long, slender, sharp at the tip; head plane, separated by a high transverse carina from the clypeus which is

strongly declivous, very concave from base to apex, and is provided along the nearly vertical basal carina with an arcuate smooth ledge, the apical part of the clypeus slants backwards, is strongly aculeate at the tip, and penicillate there, the labrum being completely fused with the clypeus without traces of a suture; eyes large, canthus very small; antennæ 10-jointed, club tri-jointed and as long as the whole pedicel, third to fifth joints very angular inwardly, sixth and seventh greatly compressed and sub-lamellate inwardly, the seventh, however, projecting less than the sixth; prothorax rounded laterally and with the basal angles also broadly rounded, not much convex; scutellum cordate; elytra parallel, somewhat depressed, without costules or striæ with the exception of the juxta-sutural stria which is, however, very faint, and covers only the basal part of the propygidium; pygidium vertical, bluntly triangular; anterior tibiæ sharply tri-dentate; intermediate and posterior ones with an oblique, punctulate but not bristly carina, hind tibiæ very broadly dilated at the apex, the upper spur long, compressed, rounded at apex, the lower sharp; hind femora short, swollen. The labial palpi, tarsi, and claws are missing in my example.

The rudimentary structure of the maxillæ coupled with the apical insertion of the maxillary palpi would seem to imply that the males of the species included in this genus take no food. In shape it somewhat resembles *Cyclomera* and *Periclitopa*, the buccal organs of which are, however, very different.

Key to the Species.

Elytra without costules on the elytra, the latter very finely punctured *hirsuta.*
Elytra with costules on the elytra, the latter less finely punctured .. *hirticollis.*

AIPEIOPSIS HIRSUTA, n. spec.

Male: Reddish-brown, with the elytra light chestnut-brown, club of antennæ flavescent, frontal part, prothorax, scutellum, and pectus clothed with a very long and very dense fulvous pubescence, pro-pygidium and pygidium with appressed, sub-flavescent, fine hairs similar to but not so dense as those clothing the sides of the abdomen, femora villose; elytra with a very short, appressed flavescent pubescence springing from the extremely closely set, fine punctures which impart to the elytra a finely coriaceous appearance; frontal part deeply and somewhat widely punctate, almost scrobiculate, straight laterally, bounded in front by a sharp transverse carina, clypeus strongly parabolic in front, very concave, strongly declivous at the basal part, the declivity bounded in the lower

by an arcuate ledge, the concave part is faintly punctulate, and the declivous part smooth; prothorax finely and closely punctate but the sculpture is hidden by the long pubescence; scutellum aciculate; elytra parallel, somewhat depressed on the upper side and with the humeral callus distinct and elongated, the juxta-sutural stria is alone faintly visible, and there are no traces of costules; the pygidial part is finely and very closely punctured.

Female unknown.

Length 18 mm.; width $8\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Victoria Falls).

AIPEIOPSIS HIRTICOLLIS, Waterh.,

Ann. and Mag. Nat. Hist., vol. xv., 4 ser., 1875, p. 406.

"Elongated, parallel, convex, brownish, clothed with a flavous pubescence; frontal part bearing on the anterior part a short, shining, transverse lamina; clypeus concave, plainly punctulate, margins strongly reflexed, anterior angles well rounded; prothorax broader by two-fifths than long, obliquely narrowed in front, clothed with a long flavous pubescence, anterior angles obliterated, sides reflexed in the anterior part, shining, base lobate in the middle; elytra as broad as the thorax and two and a half times as long, slightly convex, finely punctulate, nearly parallel, briefly pubescent and bi-costate on each side; under side clothed with long hairs; anterior tibiæ strongly tri-dentate.

Hab. Lake N'Gami."

I have not seen this species, which is probably the same size as *B. hirsuta;* but Mr. C. O. Waterhouse, whom I asked to compare my example with his species, writes that it is "very near *B.* (*Cyclomera*) *hirticollis*, but the latter has costæ on elytra, which are also less punctured."

PSEUDACHLOA, n. gen.

Mentum fused with the ligular part, narrow, straight laterally from about one-third of the length, narrowed thence but still parallel as far as the point of insertion of the palpi, the ligular part is shaped like a sharp spine; labial palpi massive and inserted on the outer face of the mentum but not quite contiguous at the base, the second joint is somewhat triangular and fused with the apical one which is sharply conical and inserted obliquely on the second, the outer angle of which, moreover, projects distinctly and bears two long setæ; maxillæ straight, the inner lobe is very plain, and ciliated at the tip,

the upper one is produced into a slightly hollow quadrangular process slightly bi-sinuate on the upper edge, serrate on the outer, each interval of the serration bearing a long hair; labial palpi long, apical joint fusiform but slightly more swollen outwardly than inwardly; maxillæ triquetrous, sharp and curved at the tip and having a very plain inner median tooth; clypeus nearly as long as the head, concave, broadly vertical in front, not separated from the frontal part by a suture or a carina, frontal part with a slight basal transverse ledge, labrum very narrow, not sinuate; antennæ 10-jointed, the tri-jointed club of the male as long as the pedicel, seventh joint compressed, fitting against the base of the club; prothorax a little ampliated and rounded laterally in the median part, slightly sinuate in the posterior, and with the basal angles sharp, base strongly sinuate; scutellum cordate; elytra sub-parallel, somewhat convex and covering the greatest part of the propygidium; pygidium large, bluntly triangular, vertical, plane; abdominal segments free, the penultimate with a narrow membranous hinge nearly twice as broad as the ante-penultimate; anterior tibiæ bi-dentate outwardly; tarsi a little longer than the tibiæ the intermediate and posterior ones of which have a sharp oblique ciliate median carina on the outer side, claws slender, long, somewhat aculeate underneath at middle.

The insect included in this genus, and the female of which is unknown, resembles closely the species of *Achloa;* the head, prothorax, and under side are likewise quite as densely pubescent, but it differs by the 10-jointed antennæ, the singular shape of the labial palpi, the vertical pygidium, and the bi-dentate tibiæ.

Pseudachloa leonina, n. spec.

Male: Very light chestnut, somewhat testaceous, head, prothorax, scutellum and the whole under side clothed with a thick, long, fulvous pubescence almost as dense as in some species of *Sparrmannia;* clypeus finely, head more deeply punctured, each puncture bearing a long setulose, erect hair; prothorax and scutellum finely yet deeply and closely punctured; elytra sub-parallel, slightly narrower at the base than the basal part of the prothorax the sharp angles of which project a little beyond the rounded humeral part, slightly tri-costulate on each side and faintly striate on each side of the costules, covered with somewhat scattered, somewhat deep punctures, most of which bear a somewhat long, appressed light fulvous hair, arranged in longitudinal rows, the outer margins have a fringe of long, sub-ciliate hairs; the propygidium is abruptly declivous and like the perpendicular pygidium very closely aciculate, both are clothed with a dense

appressed, light pubescence, very long and fulvous on the abdomen and legs, and very dense on the pectus.

Length 15½–16 mm.; width 8–8¼ mm.

Hab. Orange River Colony (Parys), Transvaal (Potchefstroom, Waterberg, Lydenburg).

GEN. TRICHINOPUS, Waterh.,

Ann. and Magaz. Nat. Hist., 1875 (4), p. 408.

Mentum very narrow, very elongated, and fused with the ligular part which bears very long, ciliate hairs, but does not project beyond the basal joints of the labial palpi, the basal joints of the palpi are contiguous, set on the outer face, parallel and longer but not much wider than the second, apical one conspicuously ovate; maxillæ long, club-shaped, rounded and slightly obliquely truncate at the top where the labial palpi are inserted, the upper and inner lobe are obliterated, but the inner part bears a few ciliæ; maxillary palpi long, second joint broadly dilated at tip, cone-shaped, apical one subfusiform or nearly cylindrical and not acuminate; clypeus quadrate, separated from the frontal part by a high transverse keel, plainly marginate all round, laminate and projecting horizontally at the anterior part, labrum fused with it or at least without visible suture, quite vertical for some distance from the laminate projecting edge, and sharply aculeate; eyes very large, genæ distinct and prolonged into a canthus dividing the anterior part of the eyes, frontal part plane, strongly carinate laterally and without any transverse ledge on the vertex; antennæ 10-jointed, the fourth joint is compressed and aculeate in the inner part, and the club consists of six very long lamellate joints; prothorax plainly diagonally attenuate laterally in the anterior part, but not in the posterior the angles of which are moderately rounded; scutellum ogival; elytra parallel, faintly bi-striate on the dorsal part, but with the juxta-sutural stria plain, they have a thick fringe of very long hairs along the outer margins, and cover the greatest part of the propygidium; pygidium sub-vertical, acutely triangular, but truncate at the apex; anterior tibiæ bi-dentate, intermediate and posterior ones with an interrupted ciliate carina dilated at apex; intermediate and hind tarsi very long, especially the latter, and beset with very long hairs; hind spurs not sharp at apex, but not compressed, and strongly divaricating; claws long, slender, with the posterior half a little wider than the anterior, the widened part ending in a very short vertical tooth.

The two species included in the genus are very delicate insects remarkable for the very long slender hairs clothing the hind legs.

The genus is not recorded outside the South African limit.

Key to the Species.

Flavescent, with the frontal part of the head infuscate and with the prothorax and legs reddish, antennæ flavous .. .. *flavipennis.*

Fuscous, with the elytra straw-colour, antennæ piceous .. .. .. *titania.*

TRICHINOPUS FLAVIPENNIS, Waterh.,

Loc. cit., p. 409.

Péring., Trans. S. Afric. Philos. Soc., 1888, vol. iv., pt. 2, pl. i., f. 10.

Head black, clypeus, prothorax, and legs reddish, antennæ and under side flavescent, elytra pale straw-coloured; clypeus transverse, straight in front and with the outer angles not rounded, broadly but not deeply punctate, clypeal carina sharp, frontal part impressed and with a few shallow punctures bearing a long erect flavescent hair; antennæ as long as the pedicel; prothorax with somewhat scattered punctures bearing each a very long erect hair equal in length to those forming a dense fringe along the outer margins, the punctures are a little more closely set on each side of the median part of the disk, which has, however, an impunctate longitudinal band, the basal part is sinuate and has a somewhat deep impression in the centre of the sinuation; scutellum very densely hairy, the flavescent hairs appressed; elytra deeply and irregularly punctate, each puncture bearing an erect setulose hair, they are faintly bi-striate on the dorsal part in addition to the plain juxta-sutural stria, and the outer margins have a thick fringe of hairs as long as those on the prothorax, the pubescence on the pygidial part, the abdomen, the pectus, and the femora is also very long and not appressed; the intermediate tarsi have very long setulose hairs at the apical part of each joint, and the hind tibiæ as well as the hind tarsi bristle with erect fine hairs, each one as long as the joints, the basal one of which is longer than the second.

Length 9½ mm.; width 4 mm.

Hab. Damaraland (Otjimbingue).

TRICHINOPUS TITANIA, n. spec.

Similar in shape to *T. flavipennis*, but differing not only in the colouring (the body being fuscous with the elytra also straw-coloured), but the clypeus is a little shorter, more broadly rounded laterally in

front, the clypeal carina is visible in the centre only, the piceous antennal club is shorter than the whole pedicel, the marginal fringe of hairs on the elytra is much shorter, and so is the pubescence on the under side, nor are the hind legs bristling with so many erect hairs.

I have seen only one example of this species, and two, including the type in the British Museum, of the other, yet owing to the shape of the clypeal part of the head, coupled with the shorter antennal club, I think *T. titania* is distinct from *T. flavipennis*.

Length 9 mm.; width $3\frac{3}{4}$ mm.

Hab. Damaraland (Walfish Bay).

GEN. ACHLOA, Erichs.,
Entomogr., 1840, p. 41.

Nanarcta, Blanch.

Mentum very narrow, parallel, ligular part ogival, basal joints of labial palpi massive, contiguous, set on the outer face of the ligular part which they hide, apical joints cylindrical, truncate at the tip, a little longer than the two preceding taken together; maxillæ slender and having the maxillary palpi inserted at the apex and inwardly a narrow, tooth-like process, obtuse and penicillate at the tip, maxillary palpi long, the last one very elongated, cylindrical, slightly inflexed towards the tip, mandibles triquetrous, sharp at tip, but without molar tooth or fringe of short hairs; antennæ 9-jointed, joints 3–5 of nearly equal length, 6 compressed, sharply acuminate inwardly, 7–9 laminate, long and forming the club which is only a little shorter than the whole pedicel; clypeus more or less concave with the anterior margin plainly raised, sloping in front, labrum separated from the anterior part of the clypeus by a plain suture, triangular, not notched at the tip, but occasionally with a slight longitudinal impressed line in the centre, head as long as the clypeus and separated from it by a transverse suture; eyes large, bulging, divided in the anterior part by a very short canthus; prothorax plainly narrowed in the anterior part, very little wider across the median part than across the base which is bi-sinuate; scutellum broadly ogival; elytra non-costulate and non-striate except for the juxta-sutural stria which, however, is nearly obliterated, sub-parallel, convex, covering half the broad propygidium, and having a row of long setæ along the outer margins; pygidium sloping forwards almost as much as in some South African *Hoplinæ*, on account of this great development of the pygidium the abdominal segments are very narrowed in the centre, and the penultimate segment has a distinct

fold; anterior tibiæ sharply tri-dentate outwardly and without an inner spur, intermediate and posterior one with an entire diagonal carina, and broadening towards the apex, apical spurs set between the tarsus and the lower angle, both not compressed, sharp at the tip; tarsi long, slender, joints bristly at the base, the two basal of nearly the same length, claws long, slender, very little curved, simple, not thickened or widened at the base.

The two species included in this genus are pale-testaceous insects whose head, thorax, and pectus are as densely clothed with light flavescent hairs as some species of *Cephalotrichia*.

So far as is known the genus has not been met with outside the South African limit.

Key to the Species.

A². Body and elytra light testaceous, hairs flavescent.

B². Clypeal suture semicircularly curved in the centre towards the frontal part.

Clypeus straight laterally, with the outer angles slightly rounded .. .. *helvola.*

Clypeus narrowed laterally and with the outer angles broadly rounded .. .. *delicatula.*

B¹. Clypeal suture transverse.

Clypeus deeply punctured, anterior margin hairless, frontal part normally pubescent .. .. *blandula.*

Clypeus impunctate, anterior margin and frontal part with a row of stiff, closely set bristles .. .. *echinaticeps.*

A¹. Body black, elytra fuscous, hairs greyish.

Clypeus concave, smooth.. .. .. *caffra.*

ACHLOA HELVOLA, Erichs.,
Entomogr., 1840, p. 42.

Very light testaceous, and clothed, except on the elytra which are glabrous, with long, dense flavescent hairs; clypeus slightly arcuate in front with the outer angles somewhat rounded, nearly straight laterally, concave and made to appear still more so by the highly reflexed anterior part, very sparsely punctulate, each puncture bearing an erect hair, divided from the frontal part by a sutural line which is very strongly arcuated towards the basal part in the centre, frontal part very closely punctured and densely hairy, the hairs

erect, prothorax slightly ampliated laterally in the centre, much less attenuated thence to the somewhat blunt, though not rounded basal angle, than towards the apex, and with the base strongly bi-sinuate, somewhat closely punctulate, and clothed with a long, erect pubescence; scutellum punctulate, densely hairy; elytra glabrous except for a few upright hairs at the base on the inner part of the humeral callus, and the normal marginal fringe the setose hairs of which are long, slightly ampliated laterally from the median part, very closely punctate, the punctures fine but not of equal size, not costulate but having a distinct juxta-sutural stria obliterated in the posterior part, this stria has a row of remote, erect, setose hairs very often obliterated; the broad propygidium the pygidium, which slants steeply forwards, and the abdominal segments bear very long villose hairs which are extremely dense on the pectus.

Length 10–12 mm.; width 5–6 mm.

Hab. Cape Colony (Graham's Town; Uitenhage, East London).

Achloa delicatula, n. spec.

Similar in shape, size, colour, and sculpture to *A. helvola* but differing in the shape of the clypeus which is plainly narrowed laterally towards the anterior part the outer angles of which are much rounded, the marginal reflexed part is plainly sinuated, and even incised at the centre.

Length 10–10½ mm.; width 6 mm.

Hab. Cape Colony (Albert).

Achloa blandula, n. spec.

This species is very closely allied to both the preceding ones; the colour, size, and vestiture are identical, but the clypeal suture, the upper edge of which is slightly carinate, is transverse, and the clypeus itself is deeply and irregularly punctured, almost scrobiculate; the punctures on the elytra, and especially on the propygidium, pygidium, and abdomen are much deeper than in any of the other species.

Length 10–10½ mm.; width 5½–6 mm.

Hab. Transvaal (Boksburg).

Achloa echinaticeps, n. spec.

Size, shape, and vestiture of *A. helvola* which it very closely resembles, the sculpture is also similar, but the clypeal suture is only moderately arcuate from side to side, while the clypeus itself is

a little narrower, slightly attenuated laterally towards the apex, more strongly reflexed at the anterior part the margin of which has a fringe of thick, stiff, spine-like erect ciliæ, alternately long and short, and is quite impunctate, the frontal part which is very strongly punctate has a double row of similarly stiff bristles along the suture, he basal part, however, is normally hairy ; the rest as in *A. helvola.*

Length 11–12 mm. ; width 6–6½ mm.

Hab. Transvaal (Johannesburg).

ACHLOA CAFFRA, Erichs.,
Entomogr., 1840, p. 42.

"Black, clothed with greyish villose hairs, elytra fuscous. Length 5 lin. Body piceous, shining, head and prothorax black. Antennæ testaceous, club a little shorter than the pedicel. Head small, frontal part somewhat plane, unequally punctate, clothed with greyish hairs, clypeus concave, smooth. Thorax as broad as the elytra, slightly narrowed in front, rounded laterally, emarginate at apex, sub-bisinuate at the base with the posterior angles moderately obtuse, slightly convex, closely, not at all strongly punctate, the sides somewhat smooth and more densely pilose, the hairs greyish. Scutellum sparingly punctate, clothed with decumbent greyish hairs. Elytra more densely and finely closely punctate, glabrous, testaceo-fuscous with the margin darker. Pygidium smooth, penultimate segment with a short, depressed pubescence, last one with long hairs ; pectus villose, the hairs greyish. Abdomen pubescent, the pubescence greyish. Legs piceo-fuscous.

"Not shorter but smaller and more cylindrical than *A. helvola ;* the villosity on the prothorax and on the pectus is shorter.

Hab. Kaffirland."

I have not yet met with this species.

GEN. ŒDANOMERUS, Waterh.,
Ann. and Mag. Nat. Hist., vol. xv., 4th ser., 1875, p. 407.

"Body thick, somewhat cylindrical, hairy. Clypeus and frontal part each with a sharp transverse carina. Mentum small, diamond-shaped, truncate at the base. Labium and labial palpi not found. Maxilla short, acuminate, with the apex slightly truncate. Maxillary palpi with the basal joint very small ; second joint much larger and about three times as long as the first, truncate at the apex, the third joint slightly transverse, the apical joint as long as the two preceding taken together, inflated, fusiform, longitudinally impressed above. Mandibles triangular, simple. Antennæ rather short,

8-jointed; the basal joint slightly inflated, the second as broad as long, the third, fourth, and fifth becoming shorter and broader, the sixth, seventh, and eighth forming an elongate-ovate thick club. Anterior tibiæ strong, with three teeth on the outer edge; the basal one small, the apical very long, and reaching to the apex of the second joint of the tarsus. Tarsi as long as the tibia; posterior femora very large, ovate, flat on the inner side, convex on the outer side, posterior tibiæ a little shorter than the femur, triangular, with a strong oblique setiferous keel, the apex furnished on the inside with two strong blade-like spurs, which are rounded at the apex; intermediate tarsi long, about twice as long as the tibia; posterior tarsi a little longer than the tibia. Every claw simple. Abdomen short; the pygidium large, with the apex nearly reaching to the base of the femora."

I have not seen the only species included by Mr. C. O. Waterhouse in this genus.

ŒDANOMERUS HIRSUTUS, Waterh.,

Loc. cit., p. 408.

"Cylindrical, hairy, the hairs white, chestnut-brown, head and prothorax piceous-black, vertex, forehead and clypeus having each a shining, transverse sharp keel; prothorax ample, convex, covered on each side with asperous punctures, sides rounded (median part almost angulate), posterior angles rounded; scutellum smooth; elytra equal in width to that of the prothorax, and almost twice its length, convex, parallel, obtuse towards the apex, moderately closely punctulate, the punctures asperous, and having on each side two hardly conspicuous costules. Length $3\frac{3}{4}$–$4\frac{1}{2}$ lin.; width $1\frac{1}{2}$–2 lin.

There is a fringe of stiff hairs between the two ridges on the head; the prothorax is clothed with long whitish hair, the elytra with white scale-like hair, the under part of the body with soft white hair.

Hab. Lake N'Gami."

TRIBE SPARRMANNINI.

Head, prothorax, and pectus very densely villose, ligula fused with the mentum, both broad, labial palpi inserted laterally, the apical joint fusiform and deeply impressed longitudinally; maxillæ strongly and sharply dentate inwardly; labrum present; antennæ 10–11-jointed, club 6–7-jointed in both sexes; eyes divided in front by

a short canthus, and having a more or less distinct orbital keel, first five abdominal segments not quite covered laterally by the elytra, the last one alone mobile; episterna very broad, epimera nearly as broad and separated by a fine suture; anterior coxæ transverse; spurs of hind tibiæ or at least one of them broad, compressed, in both sexes.

The insects for which I propose to found this Tribe are strikingly peculiar in many respects. They are massive, mostly clothed on the head and prothorax, pectus, and abdomen with a long pubescence, which is often extremely dense and very hygrometric; the clypeal shape is peculiarly their own; they are also remarkable by the dilatation of the compressed spurs of the hind tibiæ, and, as the number of antennal joints forming the club is the same in both sexes, as in some *Ablaberini*, the female would not be easily distinguished except for the still more broadly dilated, and often spatuliform hind spurs. I am not aware of any other *Melolonthinæ* in which the number of antennal joints reach eleven (*Sparrmannia*); in this genus, the first and second joints of the anterior tarsi are spinose inwardly at the tip, and another peculiarity is that in some species the teeth of the claws vary in length and position according to the sex, and differ also in species belonging to the same genus.

As I have already said in treating of the *Pachypodini*, they are closely connected with them; the genus *Beriqua* of the *Melolonthini* does, on the other hand, form a sort of connecting link with the *Sparrmannini*. I suspect them to live in the larval stage in old termite dung-heaps, like some species of *Schizonycha*. They are often met with flying in large numbers at dusk round a small bush, the crowd consisting probably of males awaiting the emergence of the females, which are, however, as common as the males.

Apart from one species of *Sebaris* recorded from Angola, representatives of this Tribe have not been met with outside the South African limit.

Key to the Genera.

Third joint of antennal pedicel very long.

Antennæ 11-jointed.*

Apical joint of maxillary palps moderately short, fusiform, labrum strong, deeply incised; antennal club 7-jointed .. .. *Sparrmannia.*

Antennæ 10-jointed.

Apical joint of maxillary palps long, fusiform outwardly only, labrum very small, sinuate; antennal club 6-jointed .. .. .. *Sebaris.*

* In *S. bechuana* the antennæ are 10-jointed.

GEN. SPARRMANNIA Casteln.,
Hist. Natur. d. Col., ii., p. 132.

Leontochæta, Erichs.; *Cephalotrichia*, Hope.

Mentum rounded and deeply constricted near the median part or slightly above it, paraglossæ very well developed in the inner face, hairy at the tip but not projecting beyond the mentum which is broadly but not deeply emarginate in the apical part, and the outer sides of which slope diagonally, the ligular part is strongly defined by a transverse suture, and is about one-third of the width of the basal part of the mentum; labial palpi lateral, apical joint slightly curved, somewhat swollen outwardly, sub-truncate at the apex; mandibles strong, deeply concave inwardly and having at apex a long sub-horizontal lamellate tooth truncate at the tip; maxillæ robust, armed at the tip with five sharp teeth set in a row and having two teeth set transversely under the upper row; last joint of maxillary palpi fusiform, very swollen in the outer part, sharply acuminate and deeply grooved along the whole length of the upper side; clypeus reflexed, more or less parabolic from a certain distance from the base, more or less deeply notched at the apex, or simple, separated from the head by a slightly arcuate suture, vertical in the anterior part and with the anterior margin moderately reflexed, labrum broad, nearly bi-lobate; frontal part simple, hairy, divided from the clypeus by a suture; eyes very large, divided in the anterior part by the canthus of the genæ which are otherwise obliterated; antennæ 11-jointed, third joint very long, only a little shorter than the basal one, second moniliform, fourth very minute, club foliated, 7-jointed in both sexes, the two inner joints slightly shorter than the others, the first, however, is sometimes conspicuously shorter (*S. bechuana*); prothorax ampliated and rounded laterally in the middle, convex; scutellum neither broad nor long, ogival; elytra slightly broader at the base than the prothorax at its highest part, slightly ampliated laterally at a short distance from the humeral part, and covering only the base of the propygidium, they are not costulate, and the epipleural fold is very much reduced in the basal part; pygidium declivous, as long as broad at its widest part, shield-like, somewhat convex in the median part; abdomen very voluminous; hind coxæ nearly transverse; metasternum not very broad, mesosternum simple; anterior tibiæ strongly tri-dentate, intermediate and posterior ones with two carinæ *en chevron*, posterior tibiæ broadly dilated at the tip, and provided with two inner flat spurs rounded at the tip and conspicuously dilated in the female of

most species, the apical part is seldom sparsely bristly (*S. transvaalica*); the tarsi are moderately long, and the joints of equal length, the two or three basal ones spinose inwardly at tip, the claws are moderately robust, much curved, and each one has underneath a basal and a sub-median vertical tooth varying in length and also in position in the different species according to the sex.

The species of *Sparrmannia* are massive insects mostly clothed on the head and prothorax, the pectus and the abdomen with extremely dense and long pubescent hairs, giving them a very singular appearance; this pubescence, however, is thinner in two species (*S. flavofasciata*, *S. bechuana*), but in others it is like a thick felt on the upper side except on the elytra. They are crepuscular insects; in the Karroo they appear in great numbers as the light disappears (there is no twilight proper in South Africa), and my colleague, Dr. Purcell, informs me that they are very numerous although local, and their flight produces quite an audible noise. I have some reasons to believe that, like some species of *Schizonycha* they pass some of their early stage in the accumulated excrements of the white ants, *Hodotermes*, *sp. sp.* They seem to appear in the months of October and November in the Cape Colony.

Several of the species are very closely allied, but the shape of the clypeus varies in every one. The valves of the genital armature differ very much. The only outward character distinguishing the females from the males are the wider apical spurs of the hind tibiæ.

The genus is restricted to South Africa.

Key to the Species.

A². Elytra concolorous.

B². Antennæ 11-jointed.

C². Head and prothorax with a thick, felt-like pubescence hiding the teguments.

D². Clypeus incised in front.

Head entirely hidden by the pubescence; clypeus moderately reflexed, deeply incised in the centre and not sinuate on either side of the incision ..	*vertumnus.* *leo.*
Head not hidden by the pubescence, clypeus distinctly reflexed, deeply incised in the centre, and sinuate on either side of the incision	*transvaalica.*
Head hidden by the pubescence, clypeus moderately deeply incised in front, the angles of the incision not projecting much beyond the margin which is very little arcuate	*prieska.*

Head hidden by the pubescence, clypeus strongly parabolic, deeply incised in the centre, and not sinuate on either side .. .. *capicola.*

D[1]. Clypeus not incised in front.

Clypeus very briefly arcuate in front, and with the sides nearly straight .. .. *namaqua.* / *boschimana.*

Clypeus semicircular from side to side .. .. .. *fusciventris.*

Head hidden by the pubescence, clypeus plainly arcuate in front and very slightly sinuate in the centre .. .. *gonaqua.*

C[1]. Head and prothorax with very long and fine pubescent hairs not hiding the teguments.

Clypeus deeply incised in the centre, the two angles projecting strongly tooth-like, straight laterally, but with the anterior angles rounded; lower median tooth of anterior claws very minute .. .. *distincta.*

Clypeus deeply incised in the centre, the two angles projecting strongly tooth-like, outer angles sharp dentate, lateral part bulging in the middle; lower median tooth of anterior claws very long .. .. *discrepans.*

A[1]. Elytra with a black suture, or transverse black bands.

Elytra with two transverse black patches, and the suture black, inner joint of antennal club slightly shorter than the one following .. .. *flavofasciata.*

B[1]. Antennæ 10-jointed.

Elytra with the suture and the outer margin of elytra narrowly black; inner joint of antennæ very much shorter than the following, which is also somewhat shorter than the third *bechuana.*

Sparrmannia vertumnus, Pall.,

It., i., pl. xliv., fig. 8.; pl. xlvi., figs. 38, 39, 40., p. 462.

S. alopex, Fabric., Mant. Insect., i., p. 19; Oliv., Ent., i., 5., p. 16, pl. iv., fig. 35*a–b*.

S. brunnipennis, Casteln., Hist. Nat., ii., p. 131.

Testaceous, with the elytra pale testaceous, testaceous, or occasionally chestnut-brown; legs slightly reddish-brown, palpi and antennæ reddish-brown, but with the club of antennæ flavescent; head, with the exception of the clypeus, prothorax, and the whole pectus clothed with an extremely long and dense pale fulvous hygrometric pubescence, each hair of which stands erect in well dessicated example, looking like a thick coating of felt if the specimen has been wetted, the abdomen and also the femora are clothed with a slightly greyer pubescence nearly akin to that of the

pectus and the prothorax, but slightly thinner, the two edges of the tibiæ have a conspicuous fringe of long greyish hairs; clypeus finely aciculate, straight laterally for a short distance from the base, thence parabolic and deeply notched triangularly in the centre, the margin is plainly reflexed, but the two angles of the incision are not conspicuously tooth-like, the head is aciculate like the clypeus, the suture between the two is noticeable if the hairs are removed, there is no basal carina, yet there is a plain, slightly raised, transverse elevation; prothorax twice as broad as long, somewhat convex, ampliated laterally in the median part, but very broadly rounded at the basal angle, the sculpture is completely hidden above and under by the pubescence; scutellum about equal in length to the width at the base, also hidden by the prothoracic pubescence as well as by its own; elytra glabrous, shining lightly, yet somewhat coarsely and irregularly punctate, very faintly tri- or quadri-striate in the dorsal part, but having a very plain stria at a short distance from the suture; propygidium and pygidium closely aciculate, more convex from the base to the apex in the male, more triangular and distinctly depressed on each side in the female, the two ultimate abdominal segments are very closely aciculate all over, and the others closely along the two margins but much less so in the centre; anterior tibiæ sharply bi-dentate outwardly, the apical tooth especially strong and long when not worn out, inner spur long, slender, those of the hind tibiæ only very slightly more dilated towards the tip in the female than in the male. In this sex the shape of the claws differ much from that of the female, the upper apical tooth is falcate, and underneath there is an equally falcate one, as in the genus *Schizonycha*, and in addition another nearly sub-basal and falcate, and the base of the claw is only angular, whereas in the female there is a simple, falcate upper tooth, a vertical, nearly median, and a shorter, but plain, basal one.

The shape of the genital armature of the male is very distinct from that of the other species.

Length 19–26 mm.; width $10\frac{1}{2}$–$13\frac{1}{2}$ mm.

Hab. The typical form with pale testaceous colour seems to be confined to the Karroo proper or its close vicinity, in the Cape Colony (Worcester, Fraserburg, Beaufort West, Victoria West, Prince Albert, Graaf Reinet, Humansdorp, Willowmore, Mossel Bay, Uitenhage), but the form with light chestnut elytra occurs in Namaqualand, Bushmanland and Damaraland.

Boheman records this species from "Caffraria tota," but it seems to me probable that this author mistook *S. transvaalica* for *S. vertumnus*.

SPARRMANNIA LEO, Gyllenh.,

Schönh. Syn. Ins., i., 3 ; Append., p. 69.

"Testaceous, shining, densely clothed with pallid hairs ; elytra glabrous.

Length 8–9 lin.

Claws longer and more strongly curved, with three teeth, those of the male with a fine notch next to the apex, and a broad but short tooth at the base, that of the female shorter, the apex is simple and they have two distinct sharp separate teeth at the base."

I have not yet met with this species.

SPARRMANNIA TRANSVAALICA, n. spec.

This species, of which I have seen two females only, resembles closely *S. vertumnus*, but it is distinguished by the very much thinner pubescence on the head, prothorax, and abdomen, the very closely set punctures on the head, which are, however, smaller than those on the clypeus, are plainly visible, the margins of the clypeus are more reflexed, and the two angles of the median incision are much more tooth-like, owing to the margin being somewhat sinuate next to them ; the hind spurs of the tibiæ, especially the upper one, are very much more broadly dilated than in the female of *A. vertumnus*, its nearest ally. The elytra are light flavous.

Length 23–24 mm. ; width 12 mm.

Hab. Transvaal (Waterberg).

SPARRMANNIA CAPICOLA, n. spec.,

Plate XLVI., fig. 47.

Smaller than *S. vertumnus*, but clothed with a similar pubescence, the colour is the same, but the elytra are somewhat more roughly punctured, and plainly more coriaceous, but it differs from *S. vertumnus* by the more elongated clypeus which is also deeply slit in the middle with the angles of the incision not dentate, and the whole surface of which is almost impunctate ; by the shape of the antennal club, the inner joint of which is plainly shorter than the one following, and by that of the anterior claws of the male, in which the upper tooth is simple, and only in the basal part is there a short, vertical one, the basal tooth being obliterated, but in the intermediate and posterior legs there is a conspicuous, vertical, slightly post-median tooth and a minute basal one ; in the female

the claws are much more like those of the same sex of *vertumnus*, but the median vertical claw is not so long.

Length 19 mm.; width 10 mm.

Hab. Cape Colony (Cape Town, Stellenbosch).

Sparrmannia prieska, n. spec.,
Plate XLVI., fig. 46.

This species resembles closely *S. vertumnus*, and might be easily taken for a dwarfed race of the same; the pubescence on the upper and under sides is identical, the shape of the clypeus is also nearly the same, but it is not quite so deeply cleft in proportion to its size; the outer margin of the elytra and also the suture are a little darker chestnut-brown than the dorsal part, the hind spurs of the tibiæ are wider in both male and female than in *S. vertumnus*, and almost transparent, and the genital armature of the male is altogether of a different type from that of *S. vertumnus*, and is narrow and elongated as in *S. capicola*, but differently shaped.

Length 13½–15 mm.; width 7–8 mm.

Hab. Cape Colony (Hope Town, Prieska).

Sparrmannia namaqua, n. spec.,
Plate XLVI., fig. 41.

Shape, size, and vestiture of *S. capicola*, and, but for the much smaller size, also closely resembling *S. vertumnus;* the colour of the elytra is, however, less testaceous, and somewhat light chestnut-red, and the clypeus is straight laterally for a short distance, thence moderately diagonal, and only slightly emarginate in the centre with the angles of the emargination sharp, but not at all dentate; in the male the lower tooth of the anterior claws is not quite as apical as in *S. vertumnus*, and is shorter, although as much curved as the upper, and the third one is slightly more basal; the genital armature differs much from that of *S. vertumnus*.

Length 17–19 mm; width 8½–10 mm.

Cape Colony (O'okiep).

Sparrmannia boschimana, n. spec.,
Plate XLVI., fig. 42.

A very close ally of *S. namaqua*, and also of *S. vertumnus*; it is however, easily differentiated from the latter by the clypeus which is entire, not even emarginate in the centre in the male, and only very slightly so in the female; the pubescence is similar to that of

the two species mentioned; the shape of the claws is the same as in *S. namaqua*, but the elytra are more finely aciculate, and are also paler; the genital armature of the two species are nearly similar, but the valves are more robust in *S. boschimana*, and the basal scooped-out space is strongly angular, and much less so and also more sloping in *S. namaqua*.

Length 18–21 mm.; width 10–12 mm.

Hab. Cape Colony (Bushmanland).

SPARRMANNIA FUSCIVENTRIS, Boh.,
Ins. Caffr., ii., p. 80.

I have only seen Boheman's type of this species, which is a female, and almost similar to *S. boschimana*, the clypeus is regularly semicircular from side to side, and the apical spurs of the hind tibiæ are, especially the upper one, more broadly marginate than in either *S. namaqua* or *S. boschimana*.

Length 20 mm.; width 10 mm.

Hab. Neighbourhood of Limpopo River, teste Bohem.

SPARRMANNIA GONAQUA, n. spec.,
Plate XLVI., fig. 43.

This species is somewhat smaller than *S. fusciventris* and *S. boschimana*, from which it is almost indistinguishable unless examined very carefully, but on careful comparison the clypeus is seen to be differently shaped; it is not emarginate in the centre as in *S. fusciventris*, and it is more arcuate than in *S. boschimana*, and slightly more sinuate in the centre than in this last-named species, the shape of the claws of the male is also similar. The difference in the shape of the genital armature bears out the slight difference in the general facies. In shape it is not unlike that of these two species, but it is not at all scooped out in the basal part.

Length 16–17 mm.; width 8½–9 mm.

Hab. Cape Colony (Beaufort West).

SPARRMANNIA DISTINCTA, Péring.,
Plate XLVI., fig. 48.
Trans. S. Afric. Phil. Soc., vol. iv., 1888, p. 103.

Pale testaceous all over, or with the elytra testaceous-red or reddish-brown; clypeus straight laterally, then very oblique, deeply incised triangularly in the centre, and with the angles of the incision

produced as a reflexed tooth, the outer angles are rounded, the clypeus has only a few scattered long hairs, and is very weakly punctulate, the head is plainly and closely punctate, and has very long decumbent hairs, which are not, however, dense enough to hide the sculpture; prothorax covered with closely set small punctures, each bearing a very long and very fine sub-erect, pubescent hair, but the whole pubescence is not thick enough to hide the sculpture; the same pubescence is found on the scutellum, the apical part of which is not punctulate; elytra of the normal shape, deeply and closely punctate, very faintly striated and having along these extremely faint striæ a series of remote, long, sub-appressed, light flavescent hairs similar to those on the prothorax, along the median part of the base and extending triangularly towards the median part of the suture these hairs are much denser; the propygidium, the pygidium, which is sparsely punctured, and the abdomen are clothed with a long, but not very dense pubescence, which is, however, much denser and equally long on the pectus and femora; legs normal, inner spur compressed, and only very moderately broadened at tip in the female, the upper one sharp in the male, the anterior claws of which have each two basal teeth.

This species and also the following one are easily distinguished from the other concolorous ones by the very much less dense and more scattered pubescence; the teeth of the maxillæ are also longer and sharper.

Length 17–18 mm.; width 9–9½ mm.

Hab. Natal (Newcastle), Transvaal (Potchefstroom, Lydenburg, Rustenburg, Johannesburg, Waterberg).

The pale testaceous examples are from the Lydenburg District.

SPARRMANNIA DISCREPANS, n. spec.

Resembles very much *S. distincta;* the colour is chestnut-brown and the hairy pubescence light fulvous; the elytra are also as deeply but more closely punctured, but the plain distinctive character is the shape of the clypeus, the sides of which instead of being straight are plainly bulging out, and the anterior part plainly quadri-dentate, the two median teeth being strongly recurved and longer than the two lateral ones which are, however, plainly reflexed; the rest as in *S. distincta,* but in my examples (two females) the tooth on the under side of the claws is median, and nearly as long as the upper one.

Length 18 mm.; width 11 mm.

Hab. Southern Rhodesia (Buluwayo).

SPARRMANNIA FLAVOFASCIATA, Burm.,

Plate XLVI., figs. 36, 37, 45.

Handb. d. Entomol., iv., 2, p. 435.

Fuscous-black, with the elytra testaceous, but having a broad basal black band and a somewhat broader apical one, the suture has a narrow black line, and the two bands are sometimes connected by a similarly narrow line along the outer margin, the width of these black bands varies considerably; clypeus impunctate, anterior angles plainly rounded, median part incised with the two angles produced into a moderately recurved tooth, with a somewhat plain sinuation on each side of it, head granulose except along the basal part, clothed with erect, long, fine, moderately dense pubescent hairs; prothorax clothed with a similar pubescence which does not hide the closely scabrose-punctate sculpture, the base is much more densely villose than the rest of the prothorax; scutellum scabrose-punctate, moderately densely pubescent; elytra somewhat parallel, closely and somewhat densely punctate, very faintly striate, glabrous; propygidium clothed with denser, appressed greyish-white hairs than the pygidium, which is somewhat comparatively denuded, owing to the setigerous scabrose punctures not being closely set; the sides of the abdomen are clothed with a thick, appressed, greyish pubescence, but the median part is almost glabrous, the pubescence on the pectus and femora is very dense and long; the inner joint of the antennal club is a little shorter than the one following, and the teeth of the maxillæ are very long and sharp; in the male the upper posterior spur is moderately wide, but in the female it is very broadly spatulate, and the lower tooth of the anterior claws is basal in the male, sub-median in the female.

Length 16–17½ mm.; width 8–8¼ mm.

Hab. Cape Colony (Burghersdorp), Orange River Colony (Parys), Natal (Newcastle).

SPARRMANNIA BECHUANA, n. spec.

Somewhat of the same build as *S. flavofasciata*, but smaller; it is black, with the elytra pale flavous and with the suture and a very narrow outer marginal band black; in shape the clypeus is nearly similar to that of *S. flavofasciata*, but the two median teeth are longer, the anterior margin is not sinuate, and it is plainly punctate instead of being smooth; the pubescence on the head and prothorax is the same, but the prothorax is much more coarsely and broadly

punctate, and the punctures separated by broader intervals; the punctures on the elytra, which are also somewhat parallel, are finer and much more shallow, the pubescence on the propygidium and pygidium are equally dense, and only the half of the abdominal segments are clothed with whitish appressed hairs, the median part of the abdomen is likewise glabrous; the pectus is moderately densely pubescent, but the hairs on the prosternum, and also along the basal part of the base of the prothorax, are plainly fulvous, while the others are white; in the male, the only sex known to me, the inner posterior spur is very broadly dilated, and the antennæ are 10-jointed, the club 7-jointed, but the inner joint is only a quarter of the length of the one following, which is also shorter than the third; the anterior claws have only one basal tooth, but the intermediate and posterior ones have two apical ones cleft in the manner of *Schizonycha*.

Length 14 mm.; width $6\frac{1}{4}$ mm.

Hab. British Bechuanaland.

Gen. SEBARIS, Casteln.,

Hist. Nat., 1840, ii., p. 131.

Mentum narrow, orbicular laterally, truncate at the tip but slightly sinuate in the middle, labial palpi small, inner lobe of maxillæ produced into a slightly hooked tooth, upper lobe lamellate, somewhat rounded at the tip, simple and with three or four setæ at the apex, paraglossæ distinct but not projecting beyond the mentum, last joint of maxillary palpi as long as the three joints preceding taken together, fusiform outwardly, straight inwardly, and with a deep longitudinal groove outwardly; mandibles robust, hollowed inwardly but with the apical part almost truncate and ciliate; clypeus vertical in front, with the anterior margin strongly reflexed, labrum obliterated, antennæ 10-jointed, club 6-jointed, the joints are of equal length, but the fourth joint of the pedicel projects distinctly in the male, they are not as elongated in the female as in the male; the other characters are as in *Sparrmannia*, but the claws are more abruptly hooked, the basal angle is somewhat broadly lobate, and the post-median tooth underneath is vertical and set close to this lobate basal part in both sexes.

Distinguished from *Sparrmannia* by the shape of the maxillary palpi and of the claws, and also by the obliterated labrum.

SEBARIS PALPALIS, Casteln.,
Plate XLVI., figs. 32 and 44.
Hist. Natur., ii., p. 131.
Lacordaire's Gener., iii., p. 306; Atlas, pl. xxxiii., fig. 1.

Light chestnut-red; head, prothorax, scutellum, and under side clothed with very long and very dense sub-erect fulvous hairs, hiding the sculpture of the teguments; clypeus hollowed and with the margins very much reflexed, the outer part is produced obliquely outwardly, the outer angles of the anterior part are produced into a somewhat blunted tooth, while the anterior margin is also produced diagonally from the outer angle to the median part, where it is triangularly incised, with the angles of the incision forming two broad sub-triangular teeth, the outer angles of the anterior part are not quite as sharp in the female as in the male, the hollowed clypeus is closely punctate and moderately pubescent, the frontal part of the head is entirely hidden by the long hairs, but it is closely punctulate like the prothorax; the scutellum is sparingly punctate and smooth at the apex; elytra a little ampliated laterally past the humeral part, somewhat convex, glabrous, deeply and somewhat coarsely punctate, and having on each side four costules, they have an outer fringe o moderately long fulvous hairs; the pygidium is sparingly punctured; the two posterior spurs are only a little wider in the female than in the male.

Length 15–19½ mm.; width 8½–11 mm.

Hab. Cape Colony (Barrydale, Aberdeen).

Another species of this genus is recorded from Humpata in Angola.

TRIBE MELOLONTHINI.

Body with scales or villose hairs or both; ligula fused with the mentum, both broad, labial palpi inserted laterally, or sub-laterally on the outer face of the mentum; maxillæ strongly dentate inwardly, labrum strong, bi-lobate in most cases, transverse in others; antennæ 7–10-jointed, the number of club-joints variable in both sexes; eyes divided in front by a short canthus; the first five abdominal segments are fused with the suture, and often obliterated in the centre, the last one alone is mobile; anterior coxæ seldom subvertical, mostly strongly slanting or quite transverse.

A². Labrum bi-lobate or deeply incised.

Episterna, long, narrow, divided from the narrow epimera by a keel, and not on a level with the epimera .. .. *Schizonychides*

Episterna broad or very broad, and on a level with the epimera *Leucopholides.*

A[1]. Labrum transverse. Anterior coxæ sub-vertical at apex, episterna narrow .. .. *Diplotaxides.*

Burmeister divided the Melolonthini in two groups; in the first one he included all the species in which the anterior margin of the prothorax is lined with a narrow membrane and in the second all the species in which this margin is either fringed with dense hairs or completely hairless. Kolbe, however, has very rightly pointed out * that these characters are too variable to be absolutely relied upon, and he has proposed another division based on the size and the plane of the episterna and epimera of the metasternum, a division which I have adopted, although in the genus *Beriqua* it does not apply.

Group SCHIZONYCHIDES.

The South African representatives of this group can be divided into two sections; in the first one, or true Schizonychides, are placed all the genera closely connected with the genus *Schizonycha*, and which, with very few exceptions (*Atys*, *Suntemnonycha*), have the third antennal joint longer than the fourth; they are characterised also by an arcuate clypeus, seldom straight laterally (*Spathoschyza*), and not incised or strongly sinuate in the centre of the anterior margin; this first division is very homogeneous, and is connected with the Tribe *Sparrmannini* by the genera *Beriqua* and *Glyptoglossa*, in which the epimera are broader than in the other South African Schizonychides. In *Glyptoglossa* the basal joints of the anterior tibiæ are as spinose inwardly at apex as in the *Sparrmannini*, and this character is also found, although in a lesser degree, in some species of *Schizonycha*. In this first section the generic differences are often small, and consist in the presence or absence of clypeal and frontal sutures or keels, coupled with the number of antennal joints; the species are so remarkably alike that without an examination of the male's genital organs the identification becomes almost an impossibility; in the second section, Psilonychides, I have placed the genera in which the third antennal joint is not plainly longer than the fourth; this character also coincides with a more or less porrect clypeus, the angles of which are generally a little rounded laterally and the anterior margin incised or sinuate in front.

* Beitz. z. Kenntn. der Melolonthiden, Ann. Soc. Ent. d. Belg., vol. 38, 1894.

Key to the Genera.

A². Clypeus arcuate or straight laterally, not incised in front — True SCHIZONYCHIDES.

B². Episterna broad or somewhat broad, not carinate along the epimera.

C². Anterior margin of prothorax with a lateral fringe of hairs, nude in the centre.

D². Frontal part with a posterior transverse elevation or keel along the base.

Clypeus with a transverse frontal suture and an intermediate frontal keel; claws with two basal vertical teeth .. .. — *Glyptoglossa.*

Clypeus with a frontal, slightly arcuate keel, claws cleft underneath .. .. — *Beriqua.*

B¹. Episterna narrow, carinate along the epimera.

*a*². Labial palpi inserted on the outer face of the mentum.

*b*³. Clypeus with the outer angles rounded.

*c*². Claws three-toothed underneath.

Prothorax convex.

*d*². Clypeal carina set close to the frontal suture and often obliterating it.

Antennæ 10-jointed .. .. — *Schizonycha.*

Antennæ 9-jointed .. .. — *Atys.*

*d*¹. Prothorax hollowed in front .. .. — *Entyposis.*

*a*¹. Labial palpi inserted laterally.

*b*². Clypeus with the outer angles rounded.

*c*¹. Claws long, slender, simple underneath .. .. .. — *Holisonycha.*

*b*¹. Clypeus straight laterally with the angles sharp.

Claws 4-toothed underneath .. .. — *Spathoschyza.*

D¹. Frontal part without a transverse elevation or keel along the base.

*a*². Clypeus with a frontal keel.

Keel very sharp, antennæ 9-jointed .. .. .. — *Syngeneschiza.*

C¹. Anterior margin of prothorax, pubescent in the centre.

*a*¹. Clypeus with a frontal suture.

Third antennal joint not elongated, lower tooth of claws truncate .. .. — *Suntemnonycha.*

A¹. Clypeus porrect, little rounded laterally, incised or sinuate in front .. .. — PSILONYCHIDES.

B². Mesosternum simple.

C. Anterior margin of prothorax with a pubescent border.

D². Upper side glabrous.

Claws without basal tooth, and with a sub-median vertical one .. .. *Sebakwe.*

D¹. Body with scales or squamose hairs.

*a*². Propygidium grooved in the centre.

Claws without a basal tooth, but with a small sub-median one .. .. *Psilonychus.*

*a*¹. Propygidium simple.

Claws with a short basal tooth and an ante-median sub-hamate one .. .. *Coniopholis.*

B¹. Mesosternum produced into a long horizontal spine.

Anterior tibiæ uni- or bi-dentate according to sex; facies of *Melolontha*.. .. .. *Rhabdopholis.*

BERIQUA, n. gen.

Mentum broad, transverse, nearly straight laterally, being only very slightly sinuate near the point of insertion of the palpi, narrowly incised in the centre of the anterior part which is quite straight with the angles sharp, there is no trace of suture dividing the ligular part from the mentum; the apical joint of the short labial palpi is a little shorter than the second, slightly fusiform and slender; maxillæ with a sharply trifid tooth at the tip and an inner, somewhat ciliate one, apical joint of maxillary palpi a little shorter than the two preceding ones taken together, slightly fusiform at base, truncate at the tip; mandibles robust, concave, tri-dentate at the tip, and lined inwardly with a broad, briefly villose membrane; head with a sharp clypeal carina, clypeus with the margin slightly reflexed, vertical part narrow, labrum short and very broadly incised; antennæ 10-jointed, basal joint moderately long, second one moniliform, third to fifth short, of equal length, set close to each other, sixth and seventh sharply angular inwardly, club long, tri-jointed, the joints straight, a little shorter than the whole pedicel (♂); prothorax convex, plainly ampliated laterally in the median part; elytra slightly broader at the base than the base of the prothorax, ampliated laterally from about the median part, convex, and covering half the propygidium which is somewhat convex and vertical; pectus densely villose; anterior tibiæ tri-dentate; posterior ones somewhat broadly dilated at apex, the spurs are flattened, rounded at the apex, the upper one very plainly dilated, and they have one oblique median ridge; tarsi long, slender, claws moderately curved and having underneath a

similarly curved but shorter sub-apical tooth, and a small, vertical basal one.

The facies of the only species which I propose to include in this genus closely resembles that of some species of *Sparrmannia.* It is very hairy on the prothorax and the pectus; the shape of the claws is exactly that of *Schizonycha;* but the epimera are somewhat broader and not carinate along the episterna.

BERIQUA MODESTA, n. spec.

Male: Chestnut-red, moderately shining, head and prothorax clothed with long, light fulvous hairs, not sufficiently dense, however, to hide the teguments; pectus and femora with similar hairs forming a very dense long pubescence; clypeus glabrous, blunt in the anterior part and with the outer angles rounded, sides somewhat narrowed towards the apex, the margin is reflexed, and it is deeply but sparingly punctured in the anterior part and impunctate in the centre, the clypeal carina is sharp, transverse, the frontal part simple, deeply and somewhat closely punctured as far as the extreme basal part; prothorax convex, ampliated laterally on the median part, sinuate along the base but not along the anterior margin, and covered all over with equi-distant, deep, round punctures, and having a smooth raised median line in the posterior part of the disk; scutellum somewhat sharply ogival; elytra sinuate from the humeral to the median part and ampliated laterally thence, somewhat convex, without any costule or stria, not even a juxta-sutural one, and covered with deep, round punctures, each bearing a minute greyish hair in the manner of *Schizonycha;* propygidium and pygidium faintly aciculate; abdomen convex, deeply and somewhat closely punctate laterally.

I have seen only two examples of this species; in one of them (♂) the tooth under the claws is very short, hardly distinct, the claw itself being merely wider and only slightly incised where the tooth should be, in the other the tooth is conspicuous.

Length 13 mm.; width 7½ mm.

Hab. Cape Colony (Namaqualand).

GEN. GLYPTOGLOSSA, Brensk.,
Annal. Genov. Mus., 1895, p. 223.

Mentum broad, transverse, slightly rounded laterally but sharply angular at the apex, ligular part much narrower than the mentum and separated by a very plain, slightly arcuate suture, deeply emarginate laterally and broadly and deeply incised in the anterior part,

but only slightly emarginate in *G. namaquensis ;* apical joint of labial palpi ovatulo-acuminate ; maxillæ very robust, arcuate, armed at apex with two sharp teeth and a trifid one below ; apical joint of maxillary palpi somewhat thickly fusiform and having an elongate impression outwardly ; maxillæ strongly hooked, almost falcate at the tip and having a very plain, sharp, inner median tooth ; labrum strong, vertical, broadly incised ; clypeus semicircular, head with a clypeal suture and a frontal slightly raised ridge ; eyes large, divided on the upper side by a setulose canthus reaching to about one-half of the exposed part ; antennæ 10-jointed, first joint long, triangularly thickened at the tip, second a little less than half the length of the basal one, swollen outwardly at apex and set near the inner edge of the first, the three following moderately short, equal, sixth and seventh vertically compressed, antennal club tri-jointed, the joints lamellate, and only a little shorter than the whole stalk ; prothorax moderately convex, ampliated and rounded laterally in the middle, moderately bi-sinuate at apex and base, and with the outer angles rounded ; scutellum cordate ; elytra slightly narrower at the base than the base of the prothorax, moderately yet distinctly ampliate laterally before the median part, somewhat convex, not costulate or striate except for the sutural stria, and covering only the base of the propygidium ; pygidium sub-vertical, slightly convex ; pectus clothed with a very dense, long pubescence ; anterior tibiæ sharply tri-dentate ; intermediate and posterior ones with only one oblique ridge, apical spurs of hind tibiæ laminate and with the upper one conspicuously dilated in both sexes ; tarsi somewhat elongate, but not longer than the tibiæ in *G. namaquensis*, the apical part of the basal joints of the anterior pair spinose inwardly ; claws long, slender, hooked, and having past the middle a short vertical tooth which seems to form the angle of the slightly broadened basal part. The female is distinguished from the male by the shorter antennal club and the somewhat more spatuliform upper spur of the hind tibiæ.

The genus is represented in South Africa by four species greatly resembling each other, but differentiated also by the shape of the genital armature of the male. They seem restricted to the arid districts of the Cape Colony.

One species however, has been recorded from Abyssinia.

Key to the Species.

A². Clypeus semicircular in front.

Very light flavous ; prothorax clothed with long, dense, flavous hairs ; tarsi very long .. .. *dispar.*

Testaceous ; prothorax glabrous above ; tarsi somewhat short.. *namaquensis.*

A¹. Clypeus slightly arcuate in front.

Frontal carina sharp, slightly cleft in the centre, space between the carina and the clypeal suture small and roughly punctate.. *lurida.*

Frontal carina weak, arcuate; space between the carina and the clypeal suture broad, impunctate in the centre .. .. .. *burmeisteri.*

GLYPTOGLOSSA DISPAR, n. spec.,
Plate XLVI., fig. 9.

Male: Very light flavous, shining; clypeus semicircular and having some fine, shallow, somewhat scattered punctures, suture somewhat arcuate but nearly obliterated in the centre, frontal carina straight, the space between the clypeal suture and the carina is somewhat deeply punctate laterally, but there is only a few scattered punctures on the centre, the vertex is closely and somewhat deeply punctured except along the base, which is smooth; prothorax ampliated and rounded laterally, basal angles broadly rounded, outer margin very slightly serrulate, covered with nearly contiguous small punctures, each bearing a very long, appressed flavous hair, the whole forming a somewhat dense pubescence; scutellum almost impunctate, but clothed with long appressed hairs springing from the base; elytra narrower in the anterior part, sinuate laterally before the median, and somewhat ampliated thence to the posterior part, covered with closely set, fine punctures, and having no traces of costules or striæ except the juxta-sutural one; the greatest part of the propygidium is uncovered and finely aciculate, the slightly convex, vertical pygidium is closely punctured in the median part only, the sides being impunctate; abdomen finely punctate, and having few, scattered, long, fine appressed hairs, median part of the suture of the segments somewhat obliterated; pectus and femora very densely villose; anterior tibiæ strongly tri-dentate outwardly, and having a long, inner slender spur, tarsi long, slender, intermediate tibiæ with an oblique rudimentary, ciliate ridge in addition to the median one; posterior tibiæ with the oblique ridge on the outer side continued in a conspicuous tooth, apex dilated, strongly ciliate, the two spurs laminate, the upper one dilated at the tip in the male, the only sex known to me.

Length 19½–20 mm.; width 9¼–10¼ mm.

Hab. Cape Colony (Namaqualand).

GLYPTOGLOSSA NAMAQUENSIS, n. spec.
Plate XLVI., fig. 52.

Male: Shape and size of *G. dispar*, but easily distinguished by the shorter tarsi, the joints of which are much broader and also

thicker; the colour is brick-red, shining; the prothorax has only a fringe of flavescent distant hairs along the anterior and lateral parts, and a dense one along the base; the semicircular clypeus and the frontal part between the clypeal suture and the frontal ridge which is somewhat emarginate in the centre, is impunctate except for a few isolated punctures on each side of the frontal part, the frontal ridge is immediately followed by a groove, and the vertex, like the frontal part is almost impunctate, except for a few lateral punctures; the punctures on the glabrous prothorax are fine and not closely set, the nearly impunctate scutellum is very hairy, and the punctures on the elytra are fine and somewhat closely set, the propygidium, pygidium, abdomen, and pectus are as in *G. dispar;* the hind legs are also as in that species, but the inner median tooth is reduced to a triangular projection.

Female unknown.

Length 19 mm.; width $9\frac{3}{4}$ mm.

Hab. Cape Colony (Namaqualand).

GLYPTOGLOSSA LURIDA, Burm.,
Handb. d. Entom., iv., 2, p. 274.
Plate XLVI., fig. 50.

Male: Testaceous, with the head sometimes ferruginous, shining; clypeus somewhat blunt in front, but the angles being broadly rounded it has a slightly arcuate appearance, the clypeus and the narrow interspace between the clypeal suture and the sharp frontal suture, which is plainly incised in the centre, and also the vertex, are deeply and closely punctured, in addition to the frontal ridge there is also on the vertex a slight transverse, ridge-like rise; prothorax ampliated laterally and rounded in the median part, basal angles rounded, covered in the anterior and median parts with round, irregular deep punctures more scattered in the posterior part where they bear each a sub-erect, long flavous hair, the anterior and lateral margins have a fringe of similar hairs, and the base is thickly but more briefly pubescent, the pubescence appressed as in the scutellum; elytra sinuate laterally before the median part, ampliated thence to the posterior part, without costules or striæ except the sutural stria, and finely and closely, yet deeply punctured; pygidium plainly convex and impunctate like the exposed part of the propygidium; the two basal segments of the abdomen densely pubescent laterally, the others with a few fine hairs; pectus very densely hairy; tarsi long, slender, median inner part of hind tibiæ very slightly angular.

Female: Entirely like the male, and distinguished only by the

more dilated laminate spurs of the hind tibiæ and the slightly shorter club of the antennæ.

Length 19½–22 mm.; width 10–11 mm.

Hab. Cape Colony (Carnarvon; Hope Town).

GLYPTOGLOSSA BURMEISTERI, Brensk.,
Stett. Ent. Zeit., 1898, p. 382.
Plate XLVI., fig. 51.

Male: Head and prothorax light testaceous-red, elytra, under side, and legs flavescent; clypeus somewhat blunt in front but with the angles broadly rounded, as in *G. lurida*, but it is punctate laterally only, the suture is slightly arcuate in the centre, the frontal carina is far removed from the clypeal suture, not very much raised and deeply bi-sinuate, the space between the suture and the carina has only a very few scattered, shallow punctures, but the vertex is deeply and closely punctate; prothorax shaped as in the other species, covered with round, irregular punctures, separated by smooth also irregular intervals, the anterior and the outer margins have a fringe of somewhat remote longish hairs, and the base has a dense fringe of flavous hairs, but the punctures on the disk are not setigerous; clypeus impunctate and with the basal part only covered by the basal fringe of hairs; elytra more ampliated laterally in the middle than in the other species, and like them without costules or striæ with the exception of the sutural stria; propygidium finely aciculate; pygidium punctulate in the central part only from base to apex; abdomen almost glabrous, and bearing somewhat scattered and shallow punctures; pectus clothed with a long, thick, flavous pubescence; tarsi long, oblique ridge on the posterior tarsi culminating in a conspicuous triangular inner tooth.

Length 19 mm.; width 10 mm.

Hab. Cape Colony (Western Province, but exact locality unknown). Brenske gave the Transvaal as the habitat of this species, but I think that this locality is erroneous.

GEN. SCHIZONYCHA, Erichs.,
Ins. Deutsch., iii., p. 658.

Mentum transverse, sub-quadrate, not very convex in the lower part, plainly bi-impressed in the anterior the margin of which is deeply incised in the middle, the incision is straight (*quæsita*), oftener triangular, but sometimes only moderately deeply incised (*caffra*, &c.); labial palpi inserted on the outer face, close to the sides, basal

joint very small, second sub-cylindrical and a little longer than the third, which is acuminato-ovate; mandibles very robust, triquetrous outwardly, curved, hollowed inwardly and sometimes bi-dentate at the tip; maxillæ robust and having a brush of fulvous hairs at the tip of the inner lobe, and ending in two robust, not much curved, strongly bifid teeth at the top and a double one lower down; maxillary palpi moderately long, the ultimate joint nearly cylindrical and truncate at the apex, but occasionally slightly swollen towards the base and sub-acuminate at the tip (*ciliata*, *crinita*, &c.); antennæ 10-jointed, the 3-jointed club nearly as long or longer than the pedicel in the male, shorter and either ovate or elongated in the female; head broad or moderately broad, clypeus vertical in front, like the strongly developed labrum, with the anterior margin slightly reflexed and more or less broadly truncate or slightly sinuate, and having sometimes a longitudinal median raised line, there is always a clypeal, sharply raised keel * set very close to the frontal suture, which disappears very often, especially if this clypeal keel is not arcuate, and in addition there is another keel on the base of the vertex, which is, however, always less sharp than the clypeal one, and is occasionally grooved; the prothorax is sinuate in front and behind, always narrower in the anterior than the posterior part, ampliated past the middle if seen from above, and either rounded there and narrowed thence towards the base which is either angular or broadly rounded, or nearly straight thence to the sharply angular base, it is convex, covered with punctures, either round, cicatricose, or with scabrose edges, the outer margin is always more or less sharply serrate and has a fringe of long setæ, and the base occasionally a much denser fringe; the scutellum is more or less sharply ogival, and has one or more lateral series of foveolate punctures, it is often a little more acuminate in the male than in the female; elytra not broader at the base than the prothorax at its widest part, sinuate laterally before the middle, more or less ampliated thence towards the posterior part, convex, covering one-half of the propygidium, covered with deep, equi-distant punctures, marginate all round and having a somewhat narrow epipleural fold, the outer margin has a fringe of somewhat remote setæ, diminishing in size from the base to past the median part, but one species (*S. globator*) has in the posterior part a thick, brush-like fringe of fulvous hairs; pygidium broader than long, arcuate at the base, semicircular, more or less deeply punctured, glabrous all round; penultimate abdominal segment often wider than the antepenultimate, ultimate one either narrow or comparatively broad, and having a fringe of short or long hairs along

* In *S. barda* this keel is very indistinct.

the margin; prosternum hairy, mesosternum short, hairy, metasternum broad and having a median longitudinal groove, either densely or sparingly hairy or occasionally squamulose; metathoracic episterna narrow, their lateral margins keeled; coxæ narrow, transverse; legs robust, anterior tibiæ bi- or tri-dentate outwardly, posterior obliquely bi-carinate, hind ones with two long, apical spurs, more flattened in the female than in the male, tarsi long or very long, with the basal joints knobby or even dentate inwardly at apex in the male (*S. ciliata*), but always shorter in the female; the basal joint of the hind ones may be longer, of the same length, or shorter than the second; the long curved claws are cleft underneath, and have a very small basal tooth, and the upper one is either longer and as robust as the lower, or much more slender and even shorter, but it is never obliterated. The shape of these teeth differ, however, not only in the sexes, but also in the anterior and posterior legs of the male especially.

The livery of these insects consists in minute, greyish hairs, which is, however, sometimes squamose; occasionally, but seldom, however, there are a few not very densely set scales, and it may be said that all the punctures are setigerous, but they are never so dense that these hairs or scales hide the background, which varies from pale testaceous to chestnut or rusty brown, and even black. In some species found in the Cape Colony the pectus is peculiarly villose.

These insects are crepuscular, perhaps nocturnal. Two of them (*S. unicolor* and *S. tumida*) are found in the neighbourhood of Cape Town in the heaps of old excrements piled outside their galleries by the white ant *Hodotermes viator*, a subterraneous species occurring all over South Africa, at the foot of bushes which have grown in these *débris*, and in company with the Dynastidous species *Syrichthus verus* and *Pycnoschema corydon*. It is very probable that many other species have similar habits.

The species are extremely local, only one or two range from the Western Provinces of the Cape Colony to Natal. One species, however, very numerous in Natal and the Transvaal (*S. squamifera*), has been recorded from Ovampoland, and I have captured a single specimen near Cape Town.

All the species are remarkably uniform in shape and livery, and but for the help afforded by the shape of the genital armature of the male they could hardly be distinguished from each other. I have examined the types and co-types of Boheman and of Brenske, but I have not been able to identify with certainty three of Burmeister's species. I have had also the loan of species formerly belonging to

the collections of Candèze, Thomson, &c., but the greatest confusion prevails in the identification of the South African species, of which I describe now seventy-seven.

Key to the Species.

A². Anterior tibiæ tri-dentate outwardly.

B². Upper tooth of anterior claws as robust or nearly as robust as the lower, and as long or longer.

C³. Basal joint of hind tarsi longer than the second.

Black; body globose; prothorax with scabrose closely set punctures, each puncture having a plainly squamose white hair. ♀ .. .. *saginata.*

Chestnut-brown; prothorax scabrose; body elongated; each puncture with a most minute hair on the upper side. ♀ .. .. *boschimana.*

C². Basal joint of hind tarsi as long as the second.

*a*². Clypeus with a median longitudinal carina.

*b*². Penultimate abdominal segment not broader than the antepenultimate.

Ferruginous-red; prothorax closely scabroso-punctate from the apex for two-thirds of the length; pygidium with scabrose punctures. ♂ .. .. *ciliata.*

Pale testaceous; prothorax with closely set, round, non-scabrose punctures. ♀ .. .. *crinita.*

Black; prothorax with broad, round punctures; elytra with a brush-like band of fulvous hairs along the posterior margin of the elytra. ♀ .. .. *globator.*

Black; prothorax with broad, deep punctures; elytra without the brush-like band of fulvous hairs .. .. *idonea.*

*b*¹. Penultimate abdominal segment broader than the antepenultimate.

Ferruginous-red; prothorax closely scabroso-punctate from the apex to two-thirds of the length; pygidium with non-scabrose punctures .. .. *comosa.*

*a*¹. Clypeus without a median longitudinal carina.

Ferruginous-red; clypeus obtuse but not sinuated in front; prothorax with shallow, scattered punctures, not scrobiculate laterally. ♀ .. .. *fartula.*

C¹. Basal joint of hind tarsi longer than the second.

D². Prothorax ampliated laterally past the middle, but narrowed thence towards the basal angle.

E². Basal angle broadly rounded.

*a*². Clypeus broadly truncated and emarginated.

Median part of clypeal ridge directed backwards; penultimate abdominal segment not broader than the preceding one .. .. *infantilis.*

Scutellum very closely punctate.

Median part of clypeal ridge straight in the centre, strongly sinuate on each side; penultimate abdominal segment broader than the preceding one.

Head broad, clypeus deeply emarginate; pygidium punctured; scutellum very closely punctate .. *transvaalica.*

Head moderately broad, clypeus emarginate; pygidium with a longitudinal, median, impunctate space; scutellum punctate laterally only .. .. *parilis.*

*a*¹. Clypeus obtuse or not broadly truncate.

*b*². Clypeus not plainly sinuate.

Penultimate abdominal segment not broader than the preceding one, the ultimate swollen .. .. .. *puerilis.*

Penultimate abdominal segment broader than the preceding one, the ultimate broad, swollen; lower tooth of each claw robust .. .. *disputabilis.*

Penultimate segment broader than the one preceding, the ultimate narrow, plane; lower tooth of each claw very small .. .. *mediastina.*

*b*¹. Clypeus sinuate.

Penultimate abdominal segment not broader than the one preceding, ultimate one moderately broad, not swollen .. .. *inedita.*

E¹. Basal angle sharp.

F². Prothorax plainly bi-impressed on each side near the apex and near the base.

F¹. Prothorax not distinctly bi-impressed.

*a*². Clypeal carina straight.

Clypeus broadly truncate in front, frontal part with a faint longitudinal ridge, but in the male only .. .. *meracula.*

*a*¹. Clypeal carina arcuate.

G². Penultimate abdominal segment not broader than the preceding one.

H². Body slender, sub-cylindrical in both sexes.

Frontal part of the head granular; last abdominal segment broad, swollen .. .. *exasperans.*

Frontal part closely foveolate-punctate; last abdominal segment narrow, not swollen .. *insuesa.*

Frontal part foveolate-punctate; last abdominal segment somewhat broad, very swollen .. .. *gonaqua.*

Prothorax with the punctures moderately closely set and the intervals transversely scabrose in the anterior part, forming irregular, smooth, transverse folds in the posterior part where the punctures are also more scattered .. .. *exacerbans.*

Prothorax with the punctures very closely set in the anterior part, a little less so on the posterior part where the intervals are smooth and not raised .. .. *profuga.*

Prothorax equally foveolate all over, the foveæ separated by narrow, raised, smooth intervals .. .. *continens.*

H¹. Body not slender, massive and convex in the female.

a^2. Clypeal carina sharp.

Prothorax with broad, nearly equi-distant foveæ, separated by smooth, raised intervals, and having a plain smooth median band in both sexes, upper and under side with squamulose hairs .. .. { *carbonaria.* *quæsita.*

Prothorax with nearly equi-distant deep punctures, each filled, as on the elytra and under side, with a conspicuous white scale, no median longitudinal smooth band *squamifera.*

a^1. Clypeal carina very feebly indicated.

Clypeus narrow but very broadly truncate and not emarginate in front; supra-basal folds of prothorax non-interrupted in the median part of the base .. .. .. *barda.*

G¹. Penultimate abdominal segment wider than the antepenultimate.

a^2. Upper tooth of anterior claws not emarginate underneath towards the tip.

No basal cephalic carina; prothorax with equally distant foveæ separated by narrow, smooth intervals .. .. *minima.*

Basal cephalic carina distinct, anterior part of prothorax with closely set punctures divided by scabrose intervals; posterior with remotely set foveate punctures and smooth, raised transverse intervals, a raised line in the centre .. .. *saga.* *perplexabilis.*

No raised line in the centre .. .. *durbana.*

Punctures on the prothorax equal, equi-distant, intervals slightly plicate transversely, especially on the sides.

Basal cephalic carina sharp, last abdominal segment narrow, slightly convex .. .. .. *dissimilis.*

Basal carina not sharp, grooved; last abdominal segment somewhat broad and convex.. .. .. *constrata.*

Punctures on the prothorax sub-foveate, equi-distant, intervals smooth, not raised; basal cephalic carina indistinct .. .. .. *rurigena.*

Punctures on the prothorax small, contiguous, very scabrose in the anterior part, a little less closely set in the posterior, a narrow longitudinal smooth line in the centre .. .. .. *neglecta.*

Punctures on the prothorax not contiguous, but somewhat closely set and with the intervals slightly scabrose in the anterior part only *plausibilis.*

Punctures on the prothorax sub-foveate, cicatricose in the anterior part, with the intervals plainly raised there as well as on the posterior, a longitudinal smooth patch in the centre .. *rufina.*

Prothorax with small, somewhat cicatricose punctures, separated by an interval equal to or a little less than their diameter, and with a faint median smooth space .. .. *citima.* *valida.*

a^1. Upper tooth of anterior claws plainly emarginated underneath.

Clypeal suture quite obliterated .. .. .. *tumida.*

D^1. Prothorax either very slightly or not at all ampliated laterally in the middle, and nearly straight thence to the sharp basal angle.

a^2. Male and female.

b^2. Penultimate abdominal segment not wider than the antepenultimate.

Testaceous-red, shining, head small, clypeus semicircular; prothorax with round punctures, subscabrose only in the anterior part; pectus densely hairy, basal joint of hind tarsi very small in the male *villosa.*

b^1. Penultimate abdominal segment wider than the antepenultimate.

Piceous, body slightly depressed, head small; prothorax with the punctures cicatricose and scabrose in the anterior part, less scabrose in the median posterior part, and having a plain median smooth space; upper tooth of claws plainly emarginate underneath at the tip .. .. *dissensa.*

Chestnut-brown, body cylindrical, head large; punctures on the prothorax round, not scabrose; upper tooth of claws not emarginate underneath .. .. .. *fraudulenta.*

a^1. Female only.

c^2. Head broad.

Body massive, convex; prothorax with round foveæ and raised smooth intervals, closely scabrose at the anterior part of the sides; penultimate abdominal segment with a basal transverse median groove .. *infarsa.*

c^1. Head narrow.

Body massive, clypeal carina moderately arcuate, suture distinct; prothorax with round, somewhat scattered punctures, with the intervals smooth and plane. ♀ .. .. *neutra.*

B^1. Upper tooth of anterior claws much more slender and shorter, seldom as long as the lower in the male.

C^1. Basal hind tarsal joint shorter than the second.

D^2. Prothorax bulging laterally just past the middle, and narrowed thence towards the base.

E^2. Penultimate abdominal segment not wider than the antepenultimate.

F^2. Upper tooth only of anterior claws shorter than the lower.

No prothoracic supra-basal fold; upper tooth of anterior claws very small, sometimes indistinct; prothorax with round foveolate punctures all over *immixta.*

F^1. Upper tooth of each claw shorter than the lower.

a^2. Head with a basal carina.

No prothoracic supra-basal fold; prothorax with round, foveolate punctures all over .. .. .. *fraudigera.*

Clypeus truncate and plainly sinuate in front; prothorax with a longitudinal smooth line distinct only from the median to the basal part; last abdominal segment wide, swollen .. .. *manicana.*

a^1. Head without a basal carina.

Clypeus truncate and sinuate in front; prothorax with a median longitudinal smooth line; last abdominal segment somewhat narrow, swollen .. .. *vaalensis.*

E^2. Penultimate abdominal segment wider than the antepenultimate.

F^2. Upper tooth of anterior claws only shorter than the lower.

G^1. Basal carina projecting more or less distinctly in the centre.

H^2. Basal angle of prothorax broadly rounded.

Clypeus semicircular in front in both the sexes .. .. *affinis.*

H^1. Basal angle of prothorax sharp.

Clypeus blunt in front, last abdominal segment narrow, not swollen .. .. *languens.*

Clypeus blunt in front, but abdominal segment somewhat broad, swollen .. .. .. *ignava.*

F^1. Upper tooth of each claw shorter than the lower.

I^2. Body elongated, sub-cylindrical in both sexes.

a^2. Head with a basal carina.

Last abdominal segment very broad, swollen .. .. *egens.*

a^1. Head without a basal carina.

Each puncture with a minute yet plain hair on the upper side, and a white scale on the under side; last segment broad, convex .. .. *pauperula.*

Clypeus deeply emarginate in front, clypeal carina plainly triangular; last abdominal segment broad, not swollen.. *ovampoana.*

I^1. Body sub-cylindrical in the male, swollen and very convex in the female.

a^2. Basal cephalic carina very sharp. Prothorax with raised, irregular areolets and a very plain, longitudinal raised line .. .. *spuria.*

a^1. Basal cephalic carina indistinct.

Prothorax with round punctures not closely set, especially along the base, and with the walls not raised; club of male elongato-ovate .. .. *natalensis.*

Prothorax with the punctures more closely set and the intervals slightly raised on the discoidal part; club of male elongated, parallel .. .. .. *russula.*

D^1. Prothorax not bulging laterally in the middle, and nearly straight thence to the sharp basal angle.

E^2. Penultimate abdominal segment not wider than the antepenultimate.

F^2. Upper tooth of all the claws slender and shorter than the lower.

G^2. Antennal club of the male longer than the stalk.

G^1. Antennal club of the male shorter than the stalk.

Light testaceous, not squamulose; prothorax scabroso-punctate along the anterior part, and with a few foveæ separated by conspicuous smooth areas on the discoidal part.. .. .. *spectabilis.*

F^1. Upper tooth of each claw more slender but longer than the lower.

Dark chestnut-brown, plainly squamulose; prothorax foveolato-punctate with the intervals raised *algoensis.*

E^1. Penultimate abdominal segment wider than the antepenultimate.

F^2. Upper tooth of every claw more slender and shorter than the lower.

G^2. Antennal club of male shorter than the stalk.

H^2. Basal outer tooth of anterior tibiæ strong and sharp.

I^2. Frontal part of the head closely scrobiculate, not granulose.

Prothorax sub-scabrose punctate on the anterior part, and with rounder punctures divided by smooth, slightly raised walls on the posterior:

Clypeal suture slightly arcuate; sides of pectus, coxæ, episterns, and abdomen conspicuously squamose .. .. *zambesiana.*

Clypeal suture triangular, pectus moderately hairy .. .. *salisburiana.*

Prothorax closely scrobiculato-punctate, the punctures cicatricose and divided by narrow, fold-like intervals, sides of pectus, coxæ, episterns, and abdomen with non-squamose hairs .. .. *elegans.*

Basal cephalic carina very indistinct; prothorax with nearly equi-distant round punctures separated by smooth intervals, not raised on the discoidal part, but somewhat so on the sides; last abdominal segment moderately short and not much swollen .. .. *furva.*

Basal cephalic carina distinct; prothorax scabrose along the anterior margin, and covered on the rest of the surface with round punctures separated by smooth intervals forming transverse areolets in the median part:

Last abdominal segment broad, very swollen .. .. *noscitata.*

Last abdominal segment somewhat narrow, not swollen .. *valvata.*

H[1]. Basal outer tooth of anterior tibiæ feebly indicated in the male.

I[1]. Frontal part of the head distinctly granulose.

Prothorax closely scabrose all over .. .. *rugosa.*

Prothorax scabroso-punctate in the anterior part, intervals of punctures hardly raised in the posterior; last joint of prothorax granulose on the whole of the anterior part, scabroso-punctate thence to the very highly raised, transverse, supra-basal fold, and having on the middle of the disk an elongated smooth patch, and several elongated areolets on each side of it .. .. { *indotata.* / *fatidica.*

G[1]. Antennal club of the male longer than the stalk.

Prothorax with moderately closely set round punctures having smooth, plane intervals; pectus very densely pubescent .. .. *debilis.*

F[1]. Upper tooth of anterior claws only more slender and shorter than the lower.

G[2]. Antennal club of male shorter than the stalk.

Prothorax with the punctures on the posterior part closely set and divided by irregular smooth walls, hair in each puncture plainly visible .. *scabiosa.*

G¹. Antennal club of male longer than the stalk.

Prothorax with round punctures divided by smooth intervals, and more closely set in the anterior part; pectus very densely pubescent.. *caffra.*

A¹. Anterior tibiæ bi-dentate outwardly.

B¹. Upper tooth of every claw shorter and much more slender than the lower.

C¹. Basal hind tarsal joint much shorter than the second.

D². Prothorax narrowed laterally from the median part to the basal angle.

Testaceous; clypeus slightly retuse in front, head punctate; prothorax with a supra-basal, smooth fold, upper and under sides covered with greyish sub-squamose hairs .. .. *increta.*

Sienna-brown; clypeus truncate and emarginate in front, head granulose; prothorax and elytra squamose *confinis.*

Testaceous; clypeus truncate and plainly emarginate in front; head granulose; prothorax and elytra with very squamiform hairs .. .. { *divulsa.* *inops.*

D¹. Prothorax not narrowed laterally from the median part to the basal angle.

*a*². Head punctate.

Dark brown; clypeus truncate, sinuate in the centre; prothorax covered with not closely set, non-cicatricose punctures, upper tooth of anterior claws very slender and very short .. .. *nigricornis.*

Dark brown; clypeus truncate, not sinuate in the middle; prothorax covered with closely set scabrose punctures in the anterior part, broader, less closely set and cicatricose in the posterior; upper tooth of the claws very fine, but somewhat deeply cleft .. .. *vicaria.*

Schizonycha saginata, n. spec.

Female: Black, legs piceous, tarsi brown, antennæ and palpi ferruginous; shining; clypeus somewhat obtuse in the median part and not sinuate there, but with the median part of the margin reflexed, clypeal carina sharp, hardly arcuate, basal carina acute, the surface of the whole head is covered with coarse rugose punctures, but in front of the clypeal and basal carinæ there is a distinct smooth transverse area; prothorax twice as wide as long, very little ampliated in the median part of the sides which are closely serrated, rounded but slightly attenuate in the anterior part, and fringed with long,

closely set fulvous setæ, it is convex on the upper side and altogether scabrose except for a somewhat faint smooth median longitudinal band; scutellum with only one puncture on each side of the apical part; elytra very convex, somewhat short, being only twice and a quarter the length of the prothorax, slightly ampliated laterally past the middle, fringed with long, somewhat scattered fulvous hairs from the humeral angle to about one-third of the length, and thence with a thick band of shorter ones, covered with closely set punctures enclosing a minute granule and bearing a short, decumbent squamose and somewhat long greyish-white hair; pygidium with somewhat deep, round, scattered punctures; pectus clothed with a dense, long fulvous pubescence; abdominal segments with a transverse row of punctures bearing each a very long, decumbent seta, penultimate one pluri-punctate laterally, not wider than the one preceding, last one somewhat narrow, plane; anterior tibiæ very sharply tri-dentate, tarsi somewhat short; basal joint of the hind ones dilated at the tip and longer than the one following.

Length 13 mm.; width 8 mm.

This species, the male of which is unknown, is allied to *S. globator*, and has likewise a thick fringe of dense, short hairs along the outer and posterior margins of the elytra; it differs, however, from it in the absence of a longitudinal raised line in the centre of the clypeus, the prothorax is scabrose instead of being broadly punctate, the sculpture is different and it is as convex as *S. natalensis* ♀.

Hab. Cape Colony (Bushmanland).

Schizonycha boschimana, n. spec.

Female: Ferruginous-red, with the elytra a little paler than the head and prothorax, shining, glabrous on the upper side except for a row of not closely set setæ along the outer margin of the prothorax and elytra; clypeus quite truncate in front and not much rounded laterally, clypeal carina distinctly arcuate, and having behind a straight transverse impressed line, the basal carina is situated at some distance from the base, and is slightly arcuate, the surface of the whole head is coarsely punctured; prothorax sharply crenulate along the sides which are plainly narrowed from the apical part to about two-thirds of the length where they are ampliated, and thence obliquely attenuated towards the basal angle, it is closely but not sharply scabrose except along the base where it is nearly smooth, and along the base it has a short fringe of flavescent hairs; scutellum with a lateral row of punctures on each side; elytra elongated, twice and a half the length of the prothorax, a little sinuate laterally before

the median part which is slightly ampliated, and covered with equally distant, moderately deep, round punctures separated from each other by a space equal to their diameter, and apparently glabrous; pygidium with scattered round punctures; pectus clothed with a long, dense flavescent pubescence; seriated punctures of the abdominal segment not deep and bearing a short hair, penultimate segment not wider than the preceding one; anterior tibiæ tri-dentate; anterior tarsi moderately long, upper claw longer than the lower one and not quite so wide; basal joint of hind tarsi a little dilated at the tip and longer than the one following.

Length 13 mm.; width 7 mm.

Hab. Cape Colony (Bushmanland).

This species is distinguished by the truncate, not sinuate anterior part of the clypeus.

Schizonycha ciliata, Burm.,
Plate XLIII., fig. 58.
Handb. d. Entom., iv., 2, p. 268.

Head and prothorax chestnut-brown, elytra and under side ferruginous-red, shining, glabrous on the upper side but having a fringe of not closely set setæ along the outer margin of the prothorax and elytra, pectus thickly villose, abdominal segments with the normal transverse row of long, appressed hairs; clypeus plainly obtuse in front, slightly sinuate in the middle, especially in the male, margin reflexed, and emitting in both sexes a distinct, median longitudinal ridge stopping a little short of the clypeal carina which is sharp and arcuate, there is no impressed line behind it, and the genæ are conspicuously projecting in a triangle much rounded at the top, the basal carina is formed by a very slightly raised line having a series of deep punctures immediately adjoining it, and the surface of the whole head has deep, round, somewhat scattered punctures except along the anterior part of the clypeal and the posterior part of the basal carinæ; prothorax a little ampliated laterally past the median part, plainly attenuate thence to the apex, distinctly serrate, closely scabrose on the upper side from the apex to near the base, somewhat scabroso-punctate there and having in the centre a somewhat indistinct smooth longitudinal line sometimes wanting, the base is fringed with dense flavescent hairs; scutellum sparsely punctulate all over; elytra elongated, slightly ampliated laterally past the median part, covered with moderately deep punctures separated from each other by a larger space than their diameter and bearing each a most minute hair; anterior tibiæ strongly tri-dentate, tarsi longer than the tibiæ,

upper claw longer than the lower, emarginate underneath at the tip in all the legs, lower one equally robust, and apical, basal joint of hind tarsi slightly clubbed at the apex, as long as the one following; abdominal segments with scattered punctures in addition to the transverse row, the penultimate not wider than the one preceding; apical parts of the propygidium and pygidium covered with closely set punctures and somewhat scabrose in the basal part which is often coriaceous.

In the female the punctures on the elytra are rounder and a little more shallow than in the male, the antennæ are yellowish, and the club very little longer in the male than in the female; the epipleural fold of the elytra is deeply seriato-punctate.

Length 20½–23 mm.; 8–9½ mm.

Hab. Cape Colony (Namaqualand).

SCHIZONYCHA CRINITA, Brensk.,
Stett. Ent. Zeit., 1898, p. 356.

Female: This species is closely allied to the preceding one; it differs, however, in the following points: the punctures on the head are less rugose, the genæ do not project conspicuously, the prothorax has a transverse band of minute scabrose punctures along the anterior margin only, the other punctures are round and not very closely set, and the sides of the prothorax, the basal part of the elytra, and the whole pectus have a conspicuously long flavescent pubescence; the colour is also much lighter, the elytra and under side are somewhat testaceous.

Length 15–16 mm.; width 8 mm.

Found on bushes at sunset.

Hab. Cape Colony (Malmesbury).

SCHIZONYCHA GLOBATOR, Fabric.,
Syst. Insect., i., p. 20.
Oliv. Entom., i., 5, p. 40, pl. vi., fig. 60.

Female: Black, opaque, antennæ ferruginous, prothorax and anterior half of the elytra fringed with long, moderately dense fulvous hairs which in the posterior part of the elytra are replaced by a thick, brush-like band of fulvous ones, pectus clothed with a long, light fulvous pubescence, legs hairy, piceous-brown; clypeus slightly obtuse in the anterior part where it is broadly but not deeply sinuate, with the margin strongly reflexed and emitting in the centre a longitudinal carina coalescing with the frontal one which is very

sharp, arcuate and slightly angular in the centre, the basal one is also sharp but less so than the clypeal one and somewhat triangular in the centre, the space on the head between the two carinæ is filled with deep, round, confluent foveate punctures, which are occasionally a little more scattered on the clypeus; prothorax very convex, ampliated laterally at about the middle and a little more diagonally attenuated thence towards the anterior than towards the basal part, closely but not very sharply serrulate, covered with round, somewhat closely set foveæ separated from each other by a much narrower space than their diameter, and having in the centre a short, smooth band, base fringed with a light fulvous pubescence; scutellum with a lateral series of punctures sometimes interrupted; elytra somewhat short, being hardly more than twice as long as the prothorax, very convex but not ampliated laterally, and covered with deep, round foveate punctures similar to those on the prothorax, but divided from each other by a space equal to their diameter; pygidium covered with closely set foveate punctures; anterior tibiæ strongly tri-dentate outwardly, tarsi very little longer than the tibiæ, upper claw of the anterior ones much longer than the lower which is somewhat perpendicular, basal joint of hind tarsi plainly clubbed at the apex and a little longer than the one following.

Male unknown to me. Burmeister says in his description of this sex that the club of the antennæ is only very little longer than in the female, that the median part of the prothorax has a longitudinal smooth band, and that the scutellum is wholly smooth with a marginal groove; but these two last characters are also met with in the female.

Length 11½–12 mm.; width 6¼–6½ mm.

Hab. Cape Colony (Cape Town, Stellenbosch).

Schizonycha idonea, n. spec.,
Plate XLIII., fig. 57.

? *S. corrosa*, Burm., Handb. d. Entom., vol. iv., 2, p. 270.

Black, or piceous-black, very little shining, antennæ ferruginous; legs and tarsi piceous-red; extremely closely allied to *S. globator*, the female, however, is a little less convex on the elytra, and the clypeus has no longitudinal carina in either sex; the shape and sculpture of the head, prothorax, and elytra are identical, but each foveolate puncture bears a short greyish hair; the basal part of the prothorax and the pectus are clothed with a dense and somewhat long flavescent pubescence, the sides of the prothorax and of the anterior part of the elytra from the base to the middle have a fringe

of long, not very closely set setæ, but there is no brush-like fringe of short and very dense fulvous hairs in the posterior part, as in *S. globator;* the shape of the clypeus and head is similar to that of the last-named species, but the genæ project a little more and the clypeus has no distinct longitudinal median ridge; the sides of the abdominal segments are closely punctate and bear a few scale-like hairs, and the penultimate one is also closely punctured along the apical margin; anterior tibiæ strongly tri-dentate, tarsi somewhat short in both sexes, upper claw much longer than the lower one and equally robust. The female hardly differs from the male.

Length 10–12 mm.; width 6–6¼ mm.

Hab. Cape Colony (Cape Town, Stellenbosch).

The males are met with flying low near the ground at the hottest time of a summer day (December).

SCHIZONYCHA COMOSA, Burm.,
Plate XLIII., fig. 52.
Handb. d. Entomol., iv., 2, p. 270.

This species is so closely allied to *S. ciliata* that but for the shape of the genital armature and a few minor characters it might be looked upon as a small example of the same; the clypeus, however, is more deeply sinuate in front; on the prothorax the punctures are not so plainly asperous, and the median smooth longitudinal line is more distinct, especially in the female; the pygidium is much less closely punctured, not coriaceous in the basal part and has there a median longitudinal impunctate space in the male, not in the female.

Length 15½–16 mm.; width 8–8¼ mm.

Hab. Cape Colony (Willowmore, Beaufort West).

The genital armature does not resemble that of *S. ciliata.*

SCHIZONYCHA FARTULA, n. spec.,
? *S. unicolor,* Herbst., Kaff., iii., p. 156, pl. xxvi., fig. 9.

Female: Ferruginous-red, or sometimes chestnut-brown; palpi and antennæ testaceous, tibiæ piceous-red; clypeus moderately arcuate, not sinuate in front, clypeal carina arcuate, sharp, edged very closely behind by a slight transverse impressed line, basal carina distinct and slightly bi-sinuate, the surface of the head is covered with nearly coalescing, sub-scabrose elongate punctures, a little less deep on the clypeus than on the frontal part; prothorax distinctly ampliated laterally in the middle, very little more narrowed in the anterior than in the posterior part, and more sharply

serrate in the anterior, the outer margin has the normal fringe of setæ, and the base is briefly pubescent, the surface is sprinkled with round punctures, somewhat distant from each other except along the anterior edge, and has a median impunctate transverse space; scutellum closely punctulate in the basal part, above the transverse impression, and with one puncture only on each side; elytra a little ampliated laterally past the median part, covered with closely set round punctures bearing each a most minute hair, and separated from each other by a space equal to their diameter; pygidium with scattered, somewhat shallow round punctures more closely set in the anterior part; pectus very little pubescent; anterior tibiæ tri-dentate, tarsi short, claw of anterior tarsi very divaricating, upper claw much longer than the lower one which appears thus more vertical than it really is, and slightly emarginate underneath at the tip; basal joint of hind tarsi clubbed at the tip, as long as the second one.

Male not known with certainty.

Length 14–15 mm.; width 8–8¼ mm.

Hab. Cape Colony (Cape Town, Stellenbosch).

Schizonycha infantilis, n. spec.,
Plate XLI., fig. 55.

Pale testaceous, with the head and prothorax light brick-red; clypeus rounded laterally in the anterior part, which is plainly emarginate in the centre, the anterior margin is reflexed, the clypeal carina is plainly sinuate on each side of the median part, which is broadly triangular, with the apex directed towards the basal very sharp carina, the median part of which is also broadly triangular with the apex directed forwards, the whole surface is covered with round, broad not contiguous punctures, and there is no trace of clypeal suture; prothorax ampliated laterally at a short distance from the basal angle, very broadly rounded thence to the base, and with the crenulate margin slightly sinuate, the surface is covered with nearly equi-distant punctures, smaller and more scabrose in the anterior than in the posterior part, and separated everywhere by a space of about their own diameter, the anterior part is transversely impressed, and the lateral fringe of setæ is not dense; scutellum very closely punctured all over; elytra sub-cylindrical, covered with closely set punctures separated from each other by a space equal to their width and bearing each a very small, flavescent hair; pygidium covered with closely set foveolate punctures; pectus very little pubescent; abdominal segments densely punctulate laterally, less so in the middle, each puncture bearing a flavescent appressed hair;

anterior tibiæ tri-dentate, anterior and intermediate tarsi long, upper claw of anterior ones longer than the lower but a little more slender; basal joint of hind tarsi shorter than the second. Female not known with certainty.

Length 10–11 mm.; width 5 mm.

Hab. Southern Rhodesia (Salisbury); Damaraland.

This species is very closely allied to *S. meracula*, but the shape of the valves of the genital armature is different.

Schizonycha transvaalica, n. spec.,
Plate XLI., fig. 53.

Brick-red, with the elytra slightly paler than the prothorax; clypeus deeply and broadly emarginate in front in the centre, clypeal carina hardly arcuate and slightly sinuate supra-laterally, basal carina distinct and projecting in the centre. The surface of the whole head, including the basal part, is covered with round, deep, non-contiguous punctures, no clypeal suture; prothorax rounded and ampliated laterally from the median to the basal part, and with the anterior obliquely attenuate and slightly sinuate, impressed transversely on each side at a short distance from the anterior margin, covered with somewhat deep, round punctures separated from each other by a space wider than their own diameter, and somewhat asperous on the sides and along the anterior part, the outer margin is only very slightly serrulate, and only in the posterior part; scutellum deeply and closely punctured; elytra covered with deep punctures separated by an interval about equal to their diameter, and slightly cicatricose in the anterior part; pygidium with deep foveate punctures somewhat closely set; sides of the abdominal segments and of metasternum deeply and closely punctured, pectus very little hairy, penultimate abdominal segment wider than the preceding one; anterior tibiæ tri-dentate, tarsi long, upper part of the claw longer than the lower and equally robust.

Female unknown.

Length 11 mm.; width 5 mm.

Southern Rhodesia (between the Limpopo and Zambesi Rivers).

Schizonycha parilis, n. spec.

Light testaceous, head and prothorax testaceous-red; it resembles extremely *S. transvaalica;* the sculpture is the same, but the head is not quite as broad and the clypeus, which is semicircular in the female, is less broadly truncate, but also plainly emarginate;

the penultimate abdominal segment is broader than the one preceding, the sides of these segments are more numerously punctured than in *S. transvaalica*, and the punctures on the pygidium leave in the middle an impunctate longitudinal area. The club of the antennæ is equally long in both sexes. The genital armature of the male is not unlike that of *S. ignava*, but the right side is slightly longer and also slightly thicker than the left and also more curved.

Length 10½–11 mm.; width 5–5¼ mm.

Hab. Southern Rhodesia (Middle Limpopo, Enkeldoorn).

Schizonycha puerilis,
Plate XLI., fig. 65.

Closely allied to *S. parilis*, and greatly resembling it, but the clypeus of the male is only moderately blunt and not sinuate, the punctures on the median discoidal part of the prothorax are a little broader, more widely scattered, and there is a somewhat distinct median smooth space; the pygidium has only a few vague punctures, mostly noticeable on the sides of the base; the penultimate abdominal segment is not broader than the one preceding, the ultimate one is somewhat broad and swollen; legs and claws as in the preceding species; in the female the clypeus is semicircular, and the club of the antennæ is almost as long as in the male.

Length 9½–10 mm.; width 4¾ mm.

Hab. Cape Colony (Griqualand West, Bechuanaland, Kuruman.

Schizonycha disputabilis, n. spec.,
Plate XLI., fig. 69.

Also closely allied to *S. puerilis*, from which it can be hardly distinguished, except by the more transverse, non-sinuate clypeal carina, the penultimate abdominal segment which is broader than the one preceding, and the shape of the genital armature which differs much from that of all the preceding species.

Female not known.

Length 9 mm.; width 4½ mm.

Hab. Southern Rhodesia (Middle Limpopo).

Schizonycha mediastina, n. spec.,
Plate XLI., fig. 64.

Fuscous, elytra chestnut-brown, antennæ and palpi ferruginous;

clypeus truncate but with the sides rounded, and covered like the head, with the exception of the basal part of the latter, with very closely set scabrose punctures; prothorax closely scabroso-punctate in the interior part and with deeper and somewhat close non-scabrose punctures on the posterior, supra basal-fold very distinct, outer margin moderately plainly serrulate; scutellum not distinctly punctate; elytra elongated and covered with deep punctures equally distant from each other and bearing a minute greyish hair; pygidium faintly punctulate; sides of abdominal segments and metasternum, coxæ, and episterns with appressed greyish squamose hairs; anterior tibiæ tri-dentate, tarsi long, lower part of the incised claws short, especially in the anterior, not much arcuate and nearly median owing to the long curve of the upper; penultimate abdominal segment broader than the one preceding, last segment moderately wide, not swollen.

Female unknown.

Length 11 mm.; width $5\frac{1}{2}$ mm.

Hab. South Africa (no exact locality).

Schizonycha inedita, n. spec.,
Plate XLIII., fig. 40.

Brick-red, with the elytra not paler than the rest of the body; clypeus very rounded laterally but briefly sinuate in the centre of the anterior part; clypeal carina arcuate, somewhat angular in the centre and having a transverse impressed line behind, the basal carina is sharp, slightly arcuate, and the surface, with the exception of the basal part behind the carina, is covered with asperous punctures more closely set, however, in the frontal part than on the clypeus; prothorax distinctly ampliated laterally and broadly rounded towards the base, the outer margin is plainly serrate and has a fringe of long setulose hairs, the sculpture consists of deep, round punctures very briefly setigerous, more cicatricose in the anterior than in the posterior part, but more closely set on the sides than on the middle of the disk; scutellum with two lateral punctures on each side near the base; elytra sub-cylindrical, covered with slightly elongate punctures bearing each a very minute hair, and divided from each other by a space equal to twice their own diameter; pygidium closely foveolato-punctate; pectus briefly pubescent; abdominal segments closely punctulate laterally, each puncture bearing an appressed hair, penultimate one not broader than the preceding, last one very little swollen; anterior tibiæ tri-dentate; tarsi long, upper claw of anterior ones much

longer than the lower but of equal thickness; basal joint of hind tarsi longer than the second.

Female unknown.

Length 12 mm.; width 5½ mm.

Hab. North-East Damaraland.

The genital armature closely resembles that of a very different species, *S. ferraria*.

Schizonycha meracula, n. spec.,

Very closely allied to *S. infantilis;* the general appearance is the same, but it differs in the following points: the clypeus is also sinuate in the centre, but the corners are more broadly rounded, the very sharp carina is not sinuate, and is normally arcuate, but the basal carina which is not very sharp, especially laterally, is produced in a triangle the apex of which is prolonged into a not very well defined longitudinal raised line reaching the centre of the frontal carina, the punctures are plainly asperous in the frontal part and more shallow on the clypeus; on the prothorax, which is of nearly similar shape but less obliquely attenuate laterally, the punctures in the posterior part are a little more scattered, and there is on the median part a somewhat indistinct longitudinal smooth space; the punctures on the scutellum are less numerous; on the elytra the discoidal part is somewhat coriaceous owing to some sub-transverse slightly raised folds, and the very briefly setigerous punctures are a little wider apart, the pygidium and the under side are alike, the anterior tibiæ are also tri-dentate, and the upper claw of the anterior tarsi is longer than the outer, which is very short, almost coalescing with the upper. In the female the frontal longitudinal cephalic carina is obliterated.

The shape of the valves of the genital armature resembles very much that of *S. transvaalica*, but it is shorter, and the declivous part is more perpendicular.

Length 11 mm.; width 5 mm.

Hab. Damaraland (Walfish Bay); Ovampoland.

Schizonycha exasperans, n. spec.

Allied in shape and colouration to *S. puerilis;* the sculpture is nearly identical, but it differs in the shape of the clypeus which, being truncate in front for the greatest part of the length, seems to be broader. The body is a little more robust than that of *S. puerilis*, and the armature of the male is of different shape; the

penultimate abdominal segment is not broader than the preceding, and the last one is swollen.

Length 11½ mm.; width 5½ mm.

Hab. Transvaal (Rustenburg).

In shape the genital armature is not unlike that of *S. puerilis*, but the clasps are considerably shorter.

Schizonycha insuesa, n. spec.,
Plate XLI., fig. 68.

Ferruginous; clypeus blunt in front but strongly rounded laterally and covered, like the head, with closely set scabrose punctures a little broader than in *S. mediastina*, the clypeal carina is arcuate as in the last-named species but is shorter transversely; prothorax very strongly serrate laterally, not very closely scabroso-punctate along the anterior part, and irregularly punctured on the discoidal and posterior part, these punctures are somewhat deep and the intervals between them are slightly raised, the supra-basal transverse fold is very plain; scutellum almost impunctate; elytra covered with minutely setigerous punctures, somewhat deep and separated from each other by a space wider than their own diameter; pygidium with small, scattered punctures; abdominal segments vaguely punctured; pectus sub-villose; tarsi long, upper part of the claw very long and curved, lower short and not much curved; penultimate abdominal segment not broader than the one preceding, last segment very little swollen.

Length 12 mm.; width 6 mm.

Hab. Cape Colony (no exact locality).

Schizonycha gonaqua, n. spec.

Ferruginous-red, club of antennæ flavescent, clypeus semi-circular laterally from the sharp basal angle to the median anterior part which is briefly sinuate, frontal carina strongly arcuate, clypeal suture discernible only in the median part, clypeus and frontal part deeply punctured, space behind the basal carina smooth; prothorax ampliated laterally past the median part, and rounded thence towards the basal angle, outer margin finely serrulate, and normally fimbriate; the surface is covered in the anterior part with scabrose, closely set punctures, a little less scattered and non-scabrose in the posterior discoidal part, in the centre there is a not very distinct longitudinal smooth band, and the supra-basal, impunctate folds are very plain; scutellum punctate laterally; elytra elongate, but distinctly sinuate below the humeral part, and

somewhat ampliate behind, the punctures are deep, equi-distant, and the hairs are very minute; pygidium deeply and closely punctate all over; abdominal segment very little punctate in the middle, but with the lateral punctures bearing long, pubescent hairs, penultimate not wider than the one preceding; pectus clothed with dense, pubescent hairs; upper claw of anterior legs longer and slightly broader than the lower, and plainly emarginate underneath towards the tip. The nearest ally of this species is *S. insuesa*, which is, however, quite distinct. In shape the genital armature is not unlike that of *S. barda*, but is different nevertheless. Female unknown.

Length 12 mm.; width $5\frac{1}{2}$ mm.

Hab. Cape Colony (Namaqualand).

Schizonycha exacerbans, n. spec., Plate XLIII., fig. 41.

The nearest ally of this species, so far as the shape of the clypeus and the sculpture of the body are concerned, is *S. plausibilis*, but it is more slender, and the colour is testaceous-red; the clypeal carina is more arcuate, and the suture is therefore shorter; the coxæ and metasternum instead of being pubescent have only a few hairs along the anterior part, but they have instead a white squamose hair in each puncture. The outward differences separating the two species are thus in *S. exacerbans* a more slender shape and redder colour, a more arcuate clypeal carina, and a squamulose pectus, but the shape of the genital armature is very dissimilar from that of *S. plausibilis*; the upper tooth of all the claws is longer than the lower, not much more slender at the base, but slightly emarginate underneath at the apex, and therefore quite similar to those of *S. plausibilis*.

Length 13 mm.; width $6\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Sebakwe).

Schizonycha profuga, n. spec., Plate LI., fig. 84.

Head, prothorax, and legs chestnut or rusty-brown, elytra paler, sometimes testaceous, antennæ and palpi rusty-red, club not much elongated; clypeus plainly sinuate in front in both sexes, wider in the female, clypeal carina arcuate in both sexes, suture distinct, basal carina also distinct, not sinuate in the male, slightly so in the female; prothorax plainly ampliated slightly past the median part, basal angle sharp, outer margin distinctly crenulate along the whole

length, surface covered with almost contiguous cicatricose punctures separated by scabrose intervals, except along the base and for a median space above the scutellum where these intervals are not scabrose, and the punctures are less cicatricose; scutellum pluripunctate on each side, the punctures more numerous in the female than in the male; elytra elongated, distinctly sinuate laterally before the median part, and very little ampliated thence; the punctures are divided by intervals narrower than their diameter, and somewhat raised in the discoidal part, the hair they bear is most minute; pygidium covered with closely set foveolate punctures separated by intervals half the size of their diameter; pectus moderately densely villose; abdomen convex in both sexes, the segments are closely punctured laterally, each puncture bearing a fine appressed hair, the penultimate segment is slightly wider than the one preceding in the male, but not wider in the female the last segment of which is very swollen; upper tooth of all the claws longer and only slightly more slender than the lower one.

Length 14–16 mm.; width 7–8¾ mm.

Hab. Southern Rhodesia (Salisbury), Mozambique (Lourenço-Marquez).

SCHIZONYCHA CONTINENS, n. spec.,
Plate XLI., fig. 80.

This species is much smaller than *S. valida*, but the shape is similar, it is also ferruginous, with the head and prothorax fuscous and the antennæ ferruginous; clypeus semicircular but very slightly obtuse in the median anterior part, clypeal carina sharp, arcuate, slightly angular in the middle, and having behind at some distance a transverse impressed line and a small, triangular smooth median patch adjoining it, the basal carina is sharp and the space behind it impunctate, but the rest of the head is covered with contiguous, scabrose punctures; prothorax ampliated and rounded laterally somewhat beyond the median part, as obliquely narrowed towards the posterior as towards the anterior angle, and with the outer margin very plainly serrate and covered with foveate punctures somewhat cicatricose in the anterior part, and separated by narrow equal, slightly raised walls all over the surface; scutellum with two arcuate rows of punctures impinging on each other; elytra deeply punctured, the punctures separated from each other by a space narrower than their own diameter; pygidium closely foveolate-punctate; punctures on the sides of the abdominal segments and on the metasternum deep, and bearing each a squamose hair, pectus very little hairy; tarsi long, upper part of the claws, especially the

anterior ones, little longer and very slightly more slender than the lower which is also elongate; the genital armature resembles a little that of *S. zambesina*, which belongs to a different section of the genus.

Length 12¼–13 mm.; width 6–6¼ mm.

Hab. Transvaal (Lydenburg, Barberton, Waterberg, Pretoria); Southern Rhodesia (Buluwayo).

SCHIZONYCHA CARBONARIA, Bohem.,
Insect. Caffrar., ii., p. 99.

Black; palpi, antennæ, and legs piceous, each puncture on the upper side with a short, but distinct white hair; club of antennæ of the male moderately long, the three joints pilose laterally; body sub-parallel in the male, more ampliated laterally and much more convex in the female; clypeus truncate in front, slightly more emarginate in the centre in the male than in the female, clypeal carina arcuate but with the median part sub-triangular, suture plain, basal part not carinate, yet slightly raised, space behind the elevation punctulate, surface covered with nearly confluent, sub-scrobiculate punctures; prothorax not much ampliated laterally in the middle and only slightly narrowed thence towards the sharp basal angle in the male, but much more plainly narrowed in the female, coarsely serrate along the outer margin and with the fringe of stiff hairs conspicuous, it is covered with foveolate punctures almost contiguous in the anterior part where the narrow intervals are scabrose, more remote and with smooth intervals in the posterior part, and having in the middle of the disk a longitudinal smooth space; elytra short, nearly parallel and not much convex in the male, ampliated and very convex in the female, the punctures are deep and the intervals smooth; pygidium with shallow, nearly obliterated round punctures in the male, deep and moderately closely set in the female; penultimate abdominal segment slightly wider than the antepenultimate, last segment very narrow in the male, broader in the female; pectus not hairy; upper tooth of claws a little more slender in the male than in the female, but longer than the lower in both sexes; tarsi long.

This species is very closely allied in shape to *S. quæsita*, *S. durbana*, *S. spuria*, and *S. squamifera*. It is much smaller than the three first-named species, but the female can hardly be distinguished from rubbed examples of *S. squamifera;* the shape of the genital armature is of quite a different type from that of he species above mentioned, and resembles closely that of *S. puerilis*, the left lobe, however, is truncate at apex.

Length 9–10½ mm.; width 5½–6½ mm.

Hab. Natal (Frere, Maritzburg); Mozambique (Lourenço-Marquez).

Boheman gives the whole of Caffraria as the habitat of this species. This leads me to the belief that more than one species were included by this author under this name. My examples are absolutely similar to his co-type in the Stockholm Museum.

SCHIZONYCHA QUÆSITA, n. spec.,
Plate XLIII., fig. 60.

Black; palpi, antennæ, and tarsi piceous; this species closely resembles *S. durbana*, but it is a little more robust, and the shape of the genital armature differs considerably; clypeus blunt and plainly sinuate in front, clypeal carina very little arcuate and having the clypeal suture reaching nearly from side to side, the basal carina is not sharp, and the surface of the head, with the exception of the basal part, is covered with very closely set foveate punctures separated by a narrow interval; prothorax ampliated and rounded laterally near the median part and closely serrate, covered with deeply cicatricose, elongate punctures very closely set and somewhat asperous in the anterior part, but separated in the discoidal by a space nearly equal to their own diameter, in the central part there is a smooth, somewhat plainly visible longitudinal band, and the transverse supra-basal fold is conspicuous and smooth; scutellum with two lateral series of broad punctures; elytra covered with somewhat deep punctures separated from each other by a space equal to their own diameter, and bearing like those on the head and prothorax a minute greyish hair; pygidium deeply but not very closely punctate; tarsi moderately long, the hind ones of the female a little shorter than those of the male, upper part of the claw very long and more robust than the lower which is nearly median; penultimate abdominal segment not broader than the preceding one, last segment somewhat broad, not swollen.

Length 13½–14 mm.; width 7½–8 mm.

Hab. Transvaal (Klerksdorp, Johannesburg).

SCHIZONYCHA SQUAMIFERA, Wallengr.,
Ent. Tidskr., 1881, p. 19.

S. liliputana, Brensk., Stett. Ent. Zeit., 1898, p. 377.

Black, not very shining, or piceous-brown, sometimes also chestnut-brown; antennæ ferruginous, tarsi piceous, the outer margin of

the prothorax and of the elytra has a fringe of somewhat long ciliæ, and the pectus is only briefly pubescent; clypeus sub-truncate in the anterior part the median part of which is slightly emarginate, the clypeal carina is very sharp, arcuate, and behind it there is a straight impressed line, the basal carina is not very sharp, and the whole surface is covered with rugulose, closely set foveolate punctures filled with a conspicuously broad lanceolate flavescent-greyish scale; prothorax ampliate laterally at about the median part and a little more diagonally attenuate thence towards the apex than towards the base, serrate and covered with foveate punctures separated from each other by a space equal to half their diameter and filled with broad appressed scales like those on the prothorax, there is in the centre a faintly raised, smooth, short, longitudinal area, and in the female, and also in some very small male examples, there are occasionally faint, wavy, irregular, smooth, transverse bands; scutellum filled with foveate punctures; elytra moderately elongate, slightly ampliated laterally past the median part, covered with foveate punctures separated from each other by a space equal to their own diameter, and filled, like the head and prothorax, by a conspicuous scale; basal part of propygidium and the whole pygidium covered with deep punctures bearing each a very short seta; penultimate abdominal segment not wider than the antepenultimate, ultimate one narrow, not swollen; pectus clothed with scales laterally, abdominal segments each with three rows of squamose appressed hairs; anterior tibiæ tri-dentate, tarsi somewhat long, upper claw of the anterior ones longer than the lower, a little more slender and slightly emarginate underneath at the tip; basal joint of hind tarsi very little longer than the second, moderately clubbed at the tip; legs with a few hairs and a few scales.

In spite of its resemblance to *S. idonea*, this species is easily distinguished by the scaly covering. The genital armature differs also considerably in shape. The female is slightly wider than the male across the posterior part of the elytra; the tarsi are of the same length as in the male.

Length $7\frac{1}{2}$–13 mm.; width $4\frac{1}{4}$–$7\frac{1}{2}$ mm.

The type of *S. liliputana*, Brsk., is a very small example, probably a stunted form caused by a lack of food in its early stage. I have seen three similar examples from Frere, in Natal. In spite of their very small size, the genital armature does not in the least differ from that of the large examples.

The range of this species is somewhat wide.

Hab. Cape Colony (Stellenbosch), Natal (Frere, Durban, Umvoti), Ovampoland.

SCHIZONYCHA BARDA, Burm.,
Handb. d. Entom, iv., 2, p. 273.

Chestnut or fuscous-brown, sometimes nearly black on the upper side, club of antennæ, under side and legs piceous-brown; clypeus somewhat short, and with the whole of the apex truncate, and the sides only moderately rounded towards the anterior part, the clypeal carina is not as much raised as in the other South African species, and is somewhat obliterated towards the outer angles, it is not strongly arcuate, and the suture is very plain, the basal carina is sharp and slightly bi-sinuate, and the surface is closely cicatricose-punctate; the head is small in proportion to the width of the prothorax which is ampliated and rounded slightly past the median part, with the outer margin plainly serrate from the apex to the middle, and less thence to the base, the lateral setæ are somewhat bristly and short, and it is covered with cicatricose punctures closely set in the anterior part, rounder and set a little more apart in the posterior, above the centre of the base, there is a longitudinal, not always distinct, smooth space; scutellum with a lateral row of closely-set punctures; punctures on the elytra deep and with the intervals on each side of the suture slightly coriaceous; pygidium faintly punctulate; tarsi long, upper tooth of the claws very long and curved, lower one very short, and nearly median on that account, but also curved; the pectus and sides of the abdomen have a few squamose sub-flavescent hairs, but the former is not villose; penultimate segment a little broader than the preceding, last segment somewhat narrow, not swollen. The female is as much convex as that of *S. natalensis* or *Atys ovatula*, but has 10-jointed antennæ.

Length $10\frac{3}{4}$–13 mm.; width $5\frac{1}{2}$–7 mm.

Hab. Cape Colony (Uitenhage).

This species differs from the other in the clypeal carina being very little raised, but it is not quite obliterated as stated by Burmeister. The forcipes of the genital armature are almost exactly like those of *S. dissensa.*

SCHIZONYCHA MINIMA, n. spec.,
Plate XLI., fig. 70.

Dark chestnut-brown, moderately shining, each puncture above and under with a squamose greyish hair; clypeus blunted in front, and not much sinuated there, clypeal carina arcuate, suture moderately plain, basal carina indistinct, frontal surface closely scrobiculate; prothorax ampliated laterally past the median part and moderately narrowed thence to the sharp basal angle, covered with round foveæ separated by a narrow raised smooth interval,

these foveæ are only slightly narrower on the sides than on the disk; scutellum with a few foveate punctures; elytra elongated, somewhat coriaceous along the median dorsal part, punctures very deep and separated by a very narrow interval; pygidium with semi-contiguous round, shallow foveæ; penultimate abdominal segment wider than the one preceding, last one somewhat narrow, swollen; pectus with a few appressed, short hairs; upper tooth of all the claws longer than the lower, and of nearly equal size. Female unknown.

Length 9 mm.; width $4\frac{1}{4}$ mm.

Hab. Mozambique (Lourenço-Marquez).

Schizonycha saga, n. spec.,
Plate XLI., fig. 59.

Fuscous or very dark brown, palpi and antennæ ferruginous, legs piceous-red; this species closely resembles *S. durbana*, but the elytra of the male are not quite so cylindrical, being slightly ampliated laterally in the posterior part; the clypeus is only blunt in the median part which is not plainly sinuate, and is thus nearly arcuate, the clypeal carina is very arcuate and has behind a transverse impressed line far removed from it in the centre, and the surface of the whole head is more deeply and also more roughly punctured; the sculpture of the scutellum consists of deep foveate punctures separated by smooth, rounded walls, and there is a fairly plain median longitudinal smooth space, the outer sides are very plainly serrate; scutellum with a lateral row of large, deep punctures; elytra subcoriaceous, and covered with deep, round punctures separated from each other by a space somewhat wider than their diameter, and each bearing a minute greyish hair, pygidium closely foveolate-punctate; abdomen closely punctate, penultimate segment broader than the one preceding, last segment moderately broad, not much swollen, pectus briefly pubescent; tarsi long, hind ones not shorter in the female than in the male, upper part of claws longer than the lower, but of equal width. Female like the male.

Length $12\frac{1}{2}$–13 mm.; width $6\frac{1}{2}$–7 mm.

Hab. Cape Colony (Worcester).

Schizonycha durbana, n. spec.

Piceous-black, with the palpi and the antennæ chestnut-brown, each puncture on the upper side bears a very minute greyish hair, the pectus is somewhat thickly hairy; clypeus blunt in front, very slightly sinuate in the centre and with the sides widely rounded

towards the anterior part, clypeal carina moderately arcuate and having behind an impressed line set closely against the median part, the surface of the whole head, including the basal part, is covered with very closely set, rugose, cicatricose punctures; prothorax ampliated and rounded laterally from the median to the basal part, strongly serrate and moderately villose, the surface is covered with round, deep punctures separated on the discoidal part by smooth, irregular patches not quite as much raised as the supra-basal, transverse fold; scutellum impunctate; elytra sub-coriaceous in the anterior, and sometimes in the posterior part, covered with deep punctures separated from each other by a space equal to their diameter; pygidium moderately closely punctate; abdominal segments deeply and closely punctate except in the middle, each puncture is setiferous, penultimate segment wider than the one preceding; tarsi long, piceous-red; upper tooth of the claws much longer than the lower, and of equal thickness. The female is like the male, not more convex, nor ampliate. It is almost impossible to notice the difference in shape and sculpture between this species and *S. saga* except by comparison with the latter; the punctures on the prothorax are, however, a little less deep, and the intervals are not raised in the posterior part, the shape of the genital armature of *S. durbana* differs much from that of *S. saga*, and hardly differs from that of *S. capensis*, which is, however, quite a different species.

Length 12½–13½ mm.; width 6½ mm.

Hab. Natal (Durban).

Schizonycha perplexabilis, n. spec.

Piceous, with the club of antennæ flavescent, shape of *S. durbana* and *S. saga;* the clypeus, however, is more distinctly sinuated, and the hair in the punctures are more visible on the upper side; the punctures on the prothorax are as broadly foveate as in *S. saga*, and the intervals are similar. The shape of the genital armature is very different from that of *S. durbana* and *S. saga;* it resembles that of *S. constrata*, but the branches of the forceps are more diverging, and the lateral projecting angle is quite apical, and smaller. Female unknown.

Length 13 mm.; width 7 mm.

Hab. Southern Rhodesia (Sebakwe).

Schizonycha dissimilis, n. spec.

Chestnut-brown, shining, hair in the punctures distinct on the upper and under sides; shape of *S. consueta*, and with the punctures of

the prothorax similar to those of *S. constrata.* The last abdominal segment is somewhat narrow and slightly convex. It is a little more slender in build than the two species above mentioned, the clypeus is sinuate in front in the male, and very little in the female, but the main distinctive character is the shape of the genital armature, which very closely resembles that of *S. perplexabilis*, the divaricating branches are, however, a little shorter, but similarly shaped. The clypeus of the female is more arcuate in front than in the male.

Length 11–12½ mm.; width 5½ mm.

Hab. Transvaal (Waterberg).

Schizonycha constrata, n. spec.,
Plate XLI., fig. 75.

Ferruginous, and with all the punctures bearing each a conspicuous whitish hair; club of antennæ testaceous; build of *S. rufina*, shorter but not more slender in proportion to its size; the shape of the clypeus is similar, but there is a smooth triangular small patch in the frontal part adjoining the clypeal carina, and the suture is distinct; on the prothorax the punctures are broader, with the intervals irregularly raised at about the median part of the disk, which has also a longitudinal smooth median slightly raised patch, but they are set somewhat close to each other in the anterior part and sides; pygidium with round punctures separated from each other by a space equal to their own diameter; punctures on the sides of the abdomen numerous and plainly squamulose; pectus somewhat densely pubescent; tarsi long, upper part of the claw of the intermediate legs moderately long, strongly curved, and robust, lower part very slightly cleft, but also robust, penultimate abdominal segment broader than the preceding, last one very swollen. My examples have lost their claws except those of the intermediate legs. Female unknown. The shape of the genital armature is of the same type as that of *S. rufina*, but differs much nevertheless.

Length 13½ mm.; width 7 mm.

Hab. Transvaal (Pretoria, Waterberg).

Schizonycha rurigena, Brensk.,
Plate XLI., fig. 76.
Stett. Ent. Zeit., 1898, p. 366.

Ferruginous, head infuscate, elytra chestnut-brown, club of antennæ flavescent, all the punctures on the upper side bearing a very distinct greyish hair; clypeus arcuate laterally but plainly emarginate

the anterior part and with the marginal edge distinctly reflexed, the clypeal carina is arcuate and the suture is very distinct, the basal carina is not distinct, and the whole surface is covered with somewhat deep punctures which are scabrose on the frontal part; prothorax ampliated and rounded laterally in the median part and covered all over with deep, round, equi-distant punctures separated from each other by a space slightly narrower than their own diameter, and not scabrose along the anterior margin or the sides, the outer margin is plainly serrate ; scutellum with four or five punctures on each side ; elytra somewhat short, a little ampliated from past the median part, and covered with deep, equi-distant punctures the intervals of which are slightly raised ; pygidium with deep, round punctures separated from each other by a space equal to their own diameter ; abdominal segments with longer hairs than usual in the punctures, penultimate one broader than the preceding, last one swollen ; punctures on the metasternum bearing each a short, appressed hair ; tarsi somewhat short ; upper part of anterior claws longer than the lower one and a little less robust.

Female unknown.

Length 14 mm. ; width $7\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Zambesi River).

SCHIZONYCHA NEGLECTA, Bohem.,
Plate XLI., fig. 52.
Insect. Caffrar., ii., p. 101.

♂ *S. puncticollis*, Boh., loc. cit., p. 98.

Totally fuscous-brown, or with the elytra and abdomen ferruginous, antennæ brick-red ; similar in shape and size to *S. continens ;* the clypeus and head are alike, and the sculpture also ; the prothorax has the same shape, but the outer margin is very little serrulate, the punctures are finer, more closely set, and the intervals are plane, the punctures along the anterior margin are slightly asperous, and there is a median longitudinal smooth, slightly raised line ; scutellum numerously punctate except at the apex ; elytra a little coriaceous, and covered with somewhat deep punctures separated by an interval equal to their own diameter ; pygidium somewhat closely punctate, penultimate abdominal segment slightly wider than the antepenultimate, and the last one narrow and swollen ; pectus with very few hairs ; tarsi long, upper part of claws longer than and of the same thickness as the lower one. Female like the male ; the shape of the genital armature is unlike that of any other South African species.

Length $13\frac{1}{2}$–15 mm. ; width $6\frac{1}{2}$–$7\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Zambesi River); Damaraland (Omaruru); Ovampoland (Omrramba); Transvaal (Pienaar's River); Bechuanaland (Kuruman).

I have found by examination of the sexual characters of the types that *S. neglecta* is the female of *S. puncticollis*.

Schizonycha plausibilis, n. spec.

This species is so closely allied to *S. neglecta* that it is at first sight difficult to distinguish the two, but apart from the totally different shape of the genital armature, it is differentiated by the punctures on the prothorax, which are not quite so closely set, especially in the posterior part, the median longitudinal smooth line is also less plainly indicated; the pygidium is much more broadly punctured, and the epipleural fold of the elytra is distinctly punctate near the basal part; tarsi long, both teeth of the claws long, upper one longer than the other, and slightly emarginate underneath; the nearest approach to the shape of the genital armature is that of *S. zambesiana*, but it is very distinct.

Length 13½–15 mm.; width 7–10 mm.

Hab. Natal (Durban, Umsimkulu, Maritzburg).

Schizonycha rufina, Bohem.,

Plate XLI., fig. 73.

Insect. Caffr., ii., 97.

Rusty-red, and with a minute hair in every puncture. In general appearance it very much resembles *S. spuria*, the shape of the clypeus is the same, but the clypeal carina is more arcuate, and the suture nearly obliterated; the punctuation of the prothorax is different on account of the punctures being cicatricose and also more asperous in the anterior part of the sides, which are also less ampliated at about the median part, and less obliquely attenuate towards the basal angle, the median longitudinal smooth space when it occurs is also more conspicuous, and the punctures on the scutellum and elytra are a little broader; the punctures on the pygidium are also deeper and more cicatricose; the tarsi are also long, and the upper tooth of the anterior claws which is very curved, is not emarginated underneath. In the female the hind tarsi are slightly shorter than in the male; the penultimate abdominal segment is hardly wider than the preceding one, and the last is swollen; in the male the penultimate is slightly wider than the antepenultimate, and the last is also very swollen.

Length 13–18 mm.; width $8\frac{1}{2}$–$9\frac{1}{2}$ mm.

Hab. Transvaal (Lydenburg, Boksburg); Cape Colony (Kimberley).

Boheman gives the whole of Caffraria as the habitat of this species; so far, I have received it only from the localities here mentioned. I fear, however, that several allied species have been included under the name by him, because a second example labelled *Type* and sent to me from Stockholm Museum is, as a matter of fact, a new species which does not agree with the description of this author, while the first example seen does agree. The outer apical margin of the forceps is more obliquely narrowed towards the apex than in the figure.

SCHIZONYCHA VALIDA, Bohem.,
Plate XLIII., fig. 62.
Insect. Caffr., ii., p. 96.

Rusty or chestnut-brown, somewhat pale testaceous; hair in each puncture most minute on the upper side; pectus densely villose; clypeus semicircular, very slightly blunted in front in the male, clypeal carina arcuate, suture distinct and set very close to the carina, basal carina sharp, punctures on the clypeus foveate, on the frontal part plainly scabrose; prothorax ampliated and rounded laterally past the median part, less narrowed thence to the sharp basal angle than towards the apical, outer margin serrate along the whole length, surface covered with cicatricose punctures with asperous intervals in the anterior part, in the posterior these punctures are broader, and the intervals are smooth and very slightly raised, but occasionally they form some small areolets near the centre, especially in the female; the depth of the punctures and the sharpness of the scabrose parts differ, however, very greatly even in examples from the same locality; scutellum pluri-punctate laterally; elytra deeply punctate, plainly coriaceous; pygidium closely punctured, the punctures more shallow, as usual, in the male than in the female; penultimate abdominal segment a little broader than the ante-penultimate in both sexes, last one somewhat broad or very broad, more or less swollen; upper tooth of all the claws much longer than the lower and robust.

This species varies very much in size, colour, and sculpture. My examples from the neighbourhood of the Zambesi River are darker, more robust, and more deeply sculptured all over than those from the Klerksdorp, Pretoria, and Waterberg Districts in the Transvaal. Some of the latter are as pale testaceous and as slender as *S. citima*,

with which they would undoubtedly be confused but for the shape of the genital armature of the male, which, although of nearly the same shape, is, however, different.

Length 13½–20 mm.; width 7¼–10 mm.

Hab. Transvaal (Klerksdorp, Pretoria, Waterberg); Southern Rhodesia (neighbourhood of Zambesi River); Damaraland.

Schizonycha citima,
Plate XLIII., fig. 61.

Sub-cylindrical, pale testaceous, head and prothorax light-chestnut; club of antennæ long, flavescent; head and prothorax similar in shape to those of *S. valida*, the sculpture is also of the same kind, but much less deep, and with the intervals less scabrose or not at all raised in the posterior part; the punctures on the elytra and on the pygidium are alike, but the elytra are not coriaceous; the upper tooth of the claws is a little more slender, but longer than the lower; the branches of the forceps of the genital armature are more constricted laterally about the median part, more divaricating thence, not as obliquely truncate at apex, and have no small triangular projection in the inner part above the inner angle.

Length 15–17 mm.; width 7–7½ mm.

Hab. Southern Rhodesia (Manica, Salisbury).

Schizonycha tumida, Cast.,
Plate XLI., fig. 58.

Hist. Natur. d. Col., ii., p. 133.

Chestnut-brown, with the elytra a little redder and the head slightly darker than the prothorax, club of antennæ flavescent, a very small white hair in each puncture; clypeus semicircular, clypeal carina moderately arcuate and without any distinct trace of a clypeal suture, the basal carina is sharp, slightly angular in the centre, the surface of the whole head, with the exception of the space beyond the basal carina, is covered with closely set, contiguous, sub-scabrose punctures; prothorax ampliated and rounded laterally in the median part, the outer margin is finely serrate and normally setulose, the whole surface is covered with somewhat small, round punctures equidistant and separated by an interval equal in width to their diameter except along the anterior margin, where they are set very closely; scutellum with two lateral rows of deep punctures; elytra cylindrical, covered with round punctures equal in size to those of the prothorax, and set at the same distance from each other; pygidium with

moderately closely set, round punctures, a little more scattered on the apical part; abdominal segments finely but not very numerously punctured laterally, pectus clothed with a long, yellowish pubescence; tarsi long, upper part of claws, especially the anterior, longer and somewhat more robust than the lower, but emarginate underneath at the tip; penultimate abdominal segment broader than the one preceding, last segment not broad, not convex.

Length 16–18 mm.; width 7½–9 mm.

Hab. Cape Colony (Cape Town, Stellenbosch, ? Namaqualand).

The female is more massive than the male, and the punctures somewhat deeper and more cicatricose on the prothorax.

My typical example is from Drège's own collection, and is labelled *Schizonycha capensis*, Dej., but I doubt if it is the insect described under that name by Burmeister. In the Collection of the late Jas. Thomson it is labelled *S. tumida*.

Schizonycha fraudulenta, n. spec.

Closely allied to *S. tumida*, and closely resembling it in shape, size, colour, and sculpture, but the head has a distinct clypeal suture which is wanting in *S. capensis*, the punctures on the prothorax are slightly less closely set in the posterior part, and the prothorax is plainly less ampliated past the median, and nearly straight thence to the basal angle if viewed from above; the punctures on the elytra are slightly deeper and broader, the pectus is very hairy; the penultimate abdominal segment is broader than the ante-penultimate, and the terminal one is very broad and convex, much broader than in *S. tumida;* the tarsi of the anterior legs are missing in the male example sent to me under the name of *S. capensis* by Herr Brenske, but the upper tooth of the intermediate and posterior claws is longer than the lower, a little more robust, and not emarginate underneath; it is when the genital armature is examined that the difference between *S. fraudulenta* and *S. tumida* is strongly marked. In the last-named species the branches of the forceps are somewhat slender, of equal length, and symmetrical (pl. li., fig. 58), whereas in the former the shape is almost similar to that of *S. vicaria* (pl. xliii., fig. 54), but the left branch of the forceps is narrower and sharply acuminate at the tip.

Length 16 mm.; width 7½ mm.

Locality not recorded.

It might be that the upper tooth of the anterior claws is shorter and more slender than the lower, in which case this species would come near *S. scabiosa*, which it somewhat resembles also, but in

which the head is much narrower; the prothorax, however, has the same shape in both species.

In Herr Brenske's Collection.

Schizonycha villosa, Brensk., Stett. Ent. Zeit., 1898, p. 367.

Brick-red, shining, prothorax a little redder than the elytra; clypeus plainly semicircular, but obtuse for a very short space in the anterior part, and with the margin distinctly reflexed all round, the clypeal carina is almost transverse, the basal one is nearly as much raised as the clypeal, and the surface of the head, with the exception of the base, is covered with cicatricose punctures somewhat asperous in the frontal part; prothorax ampliated and rounded laterally at about the median part, which slopes so much downwards that if seen from above it does not seem to be narrowed towards the sharp basal angle, it is covered with round punctures somewhat irregularly scattered in the discoidal part, but set nearer to each other on the sides, the outer margin is very slightly crenulate, and the hairs are somewhat long; scutellum pluri-punctate on each side; elytra somewhat short, and with the punctures deep and each bearing a minute greyish hair; pygidium with only a few scattered round punctures; pectus densely pubescent in the male, and with a few appressed squamulose hairs in the female; femora somewhat densely hairy; tarsi moderately long, claws very diverging, upper tooth curved, much longer and more curved than the lower, which is very short, sub-vertical, and also sub-median; the basal hind tarsal joint is very short in the male, and proportionately less so in the female.

Length 11 mm.; width 6 mm.

Hab. Natal (Estcourt, Maritzburg).

Schizonycha dissensa, n. spec., Plate XLIII., fig. 53.

Black, not much shining, elytra and legs occasionally deep fuscous-brown; antennæ and palpi piceous-red; punctures on the upper side bearing a very minute greyish hair; head small in proportion to the width of the prothorax, clypeus not much arcuate laterally near the base, but more so towards the anterior part, which is somewhat blunt but not quite truncate, the clypeal carina projects triangularly in the median part; the basal carina is distinct, but not very sharp, and the whole surface is covered with contiguous, foveolate, shallow punctures somewhat asperous on the frontal part; prothorax not ampliated

laterally in the median part, and nearly straight from there to the basal angle, sharply crenular along the outer margin which is beset with very long, fulvous setose hairs, the anterior part and the sides are covered with very closely set, deep, somewhat asperous foveolate punctures, more scattered and a little broader in the median and posterior part of the disk which has a somewhat conspicuous longitudinal median smooth space, with several irregular smooth areolets on each side of it; scutellum with one uninterrupted row of punctures along the outer edge; elytra not much convex, punctures deep, equi-distant, intervals smooth; pygidium with numerous small punctures; punctures on the abdominal segment and on the metasternum bearing each a long fulvous hair forming a dense pubescence on the pectus; penultimate abdominal segment wider than the antepenultimate, last one narrow; tarsi moderately long, teeth of the claws very deeply cleft, upper one as robust as the lower, longer and plainly emarginate underneath towards the tip; the hind tarsi are very little shorter in the female than in the male, in which sex the basal joint is very little shorter than the second, whereas it is plainly longer in the female; the shape of the genital armature is unlike all others, it is the only one in which the symmetrical lobes are as sharply acuminate at the tip.

Length 13 mm.; width 15 mm.

Hab. Cape Colony (exact locality unknown).

This species will be easily recognised owing to its small head and very little convex elytra.

SCHIZONYCHA INFARSA, n. spec.

Female: Dark chestnut-brown, shining, tibiæ and tarsi piceous-red, antennæ and palpi ferruginous; clypeus sub-truncate in front with the median part sinuate, the anterior margin is sharply reflexed, the clypeal carina very arcuate and strongly reflexed, and behind it there is a deeply impressed transverse line, also slightly arcuate in the median part, the basal carina is distinct, and the space behind it smooth, but the rest of the head is covered with very rough, large scrobiculate punctures; prothorax ampliated laterally towards the median part, but very little attenuate thence towards the basal angle which is sharp, but plainly narrowed in the anterior part, sharply serrate, very convex and having the normal fringe of somewhat long and not closely set setæ along the outer margin, it is covered with deep round punctures, enclosing a smaller pit, these punctures are more closely set along the sides, where they coalesce and become almost scrobiculate, but the discoidal ones are separated

from each other, are somewhat irregularly scattered, and are divided by a space somewhat wider than their own diameter, the basal margin is not fringed with hairs; scutellum with two somewhat irregular lateral rows of punctures; elytra convex, a little ampliated laterally past the median part covered with moderately shallow punctures, somewhat closely set yet separated from each other by a space equal to their own diameter, and bearing each a most minute hair, these punctures are not round and are slightly cicatricose; edge of propygidium closely punctulate, pygidium covered with deep, round, closely set punctures; pectus very slightly pubescent; abdominal segments covered, except in the median part, with very closely set, setiferous, scabrose punctures, the penultimate segment, which is a little wider than the one preceding, has a basal transverse median carinate groove, and the punctures on the side are broader than on the other segments, and not scabrose; anterior tibiæ strongly tridentate; tarsi short, anterior claws strongly developed, upper one as long and nearly as robust as the lower one; basal joint of hind tarsi as long as the second.

Male unknown.

This species has a short, robust facies.

Length 17 mm.; width 10 mm.

Hab. Transvaal (Lydenburg).

Schizonycha neutra, n. spec.

Female: Rusty-red, with the elytra and abdomen redder, shining, the punctures on the upper side bear a most minute hair, antennæ reddish-brown; head small, clypeus oblique laterally towards the anterior part, which is truncate in the centre, and the outer part rounded, the clypeal carina is moderately arcuate, the clypeal suture short and close to the carina, the basal one is distinct and projects slightly in the middle towards the frontal part, and the surface of the clypeus and frontal part is somewhat closely cicatricose punctate except along the clypeal suture and the basal carina; prothorax broad, not ampliated laterally in the middle, not narrowed thence towards the base, but nevertheless very slightly sinuate above the basal angle, the outer margin is plainly serrate and normally setulose, and the punctures on the surface are very scattered, but a little more closely set along the median anterior part, they are round, very little cicatricose, there is distinct median longitudinal smooth space, and the interspaces are smooth; scutellum broad, punctate laterally; elytra ampliated from a third of the length; punctures broad and deep, the suture is infuscate; pygidium not distinctly punctulate;

punctures on the sides of the abdominal segments very small and bearing a very minute squamulose hair, those on the coxæ and metasternum bear each an appressed hair, fine and short; penultimate segment of abdomen wider than the preceding one, last segment swollen; intermediate and posterior tarsi moderately long; upper tooth of the claws of these tarsi (the anterior ones are missing in my examples) much longer than the lower, and of equal size.

Length 15 mm.; width $8\frac{3}{4}$ mm.

Hab. Cape Colony (Graham's Town).

SCHIZONYCHA IMMIXTA, n. spec.,
Plate LI., fig. 67.

Testaceous, with the elytra paler, but occasionally totally subferruginous; club of antennæ sub-flavescent, as long as all the joints taken together; clypeus truncate and plainly sinuate in front, clypeal carina arcuate, suture distinct, basal carina indistinct, and replaced by a transverse row of foveolate punctures, clypeus and frontal part with foveolate punctures separated by smooth intervals; prothorax slightly ampliated laterally at about the median part, and not much attenuated thence towards the sharp basal angle, covered with equidistant round punctures, separated by somewhat narrow, very slightly raised, smooth walls, from the centre of the discoidal part there runs a narrow, smooth, longitudinal band reaching the base, and the transverse supra-basal folds have disappeared entirely, the outer margins show very little traces of serration; scutellum with one lateral row of punctures; elytra very little ampliated laterally before the median part, covered with round punctures separated by smooth intervals; hairs most minute; upper half of the pygidium set with irregular deep punctures, lower half impunctate; abdomen distinctly depressed in the middle, penultimate segment not broader than the one preceding, last segment narrow, transverse, the sides of the abdomen are deeply, closely, and somewhat broadly punctate, and the pectus is moderately densely pubescent; tarsi long, upper tooth of anterior claws extremely small and at times indistinct, that of the intermediate and posterior ones much longer and more robust than the lower. Female unknown.

Length $11\frac{1}{2}$–$12\frac{1}{2}$ mm.; width $6\frac{1}{2}$–$7\frac{1}{2}$ mm.

This species is easily recognised by the absence of the supra-basal raised folds of the prothorax, the great length of the club of the antennæ, and the almost obliterated upper tooth of the anterior claws. The shape of the genital armature is also very characteristic, and unlike any other.

This species is labelled, *S. corossa*, Burm., in the Brussells Museum.

Hab. Cape Colony (Graham's Town, Transkei).

Schizonycha fraudigera, n. spec.

Testaceous-red, with the antennal club of the male sub-flavescent; closely allied to *S. immixta;* the sculpture of the head and prothorax is quite similar, that is to say, the latter is covered with equi-distant, round, foveolate punctures all over, and the basal fold is almost obliterated; but the occipital keel is hardly distinct, the shape is much more slender, and the upper tooth of all the claws is slender; the shape of the genital armature of the male, although of the same type, is different, the two symmetrical branches of the forceps are gradually very narrowed with a slight curve from the base to a short distance from the apex, where they are spatulate, the inner margin being straight, whereas in *S. immixta* the branches are bi-sinuate inwardly and outwardly.

Length 10½–11 mm.; width 5½ mm.

Hab. Transvaal (Lydenburg).

Schizonycha vaalensis, n. spec.,
Plate XLIII., fig. 50.

?*S. africana*, Klug (nec. Casteln.), Peter's Reis., p. 257.

Chestnut-brown, moderately shining, club of antennæ long in the male, sub-flavescent in both the sexes; clypeus truncate in front, plainly sinuate in the centre, and broadly rounded laterally; clypeal carina somewhat strongly arcuate, suture distinct, no basal carina or groove, the surface of the whole head is covered with closely set scrobiculate punctures which are slightly narrower and a little more rugose on the frontal part than on the clypeus; prothorax plainly serrate along the whole of the outer margins, plainly ampliated laterally in the median part, and nearly as much attenuated thence to the basal angle as towards the apical one, covered with cicatricose punctures very closely set and with the intervals raised and rugulose on the sides and in the anterior part, and even sub-scabrose along the margin, rounded, larger and more broadly scattered, especially on the sides, from the median to the basal part, and having at about the middle an elongated longitudinal, smooth, slightly raised space; scutellum with two or three lateral punctures in the anterior part; elytra elongated, almost sub-cylindrical in both sexes, covered with somewhat deep punctures separated by a very narrow

interval slightly raised along the sutural part only, hairs minute; pygidium covered with round foveate punctures, which are somewhat closely set and similar in both the sexes; abdomen only very slightly impressed in the centre in the male, and with the segments nearly as numerously punctured in the median part as on the sides, penultimate segment as broad as the antepenultimate, last one narrow and transverse in both the sexes and somewhat swollen; pectus with a few villose hairs springing from foveolate punctures; tarsi long, those of the female almost as long as those of the male, upper tooth of anterior claw more slender than the lower but equally long, that of the intermediate and posterior claws equally long, but only very slightly more slender.

Length 14–15½ mm.; width 7¼–8 mm.

Through the courtesy of Dr. H. Kolbe, of the Berlin Museum, I have been able to compare a typical species of *S. africana*, Klug, nec. Casteln., which almost completely resembles the present species. I have unfortunately not been able to examine its genital armature. That of *S. vaalensis* is very singular. So far as I know, however, the habitat of this species is restricted to the neighbourhood of the Vaal River.

Hab. Cape Colony (Kimberley, Vaal River, Barkly West).

SCHIZONYCHA MANICANA, n. spec.,
Plate LI., fig. 72.

Head and prothorax testaceous-red or sub-ferruginous, elytra and abdomen very pale testaceous, legs chestnut-brown, club of antennæ long in the male; clypeus truncate, plainly sinuate, and with the sides oblique, clypeal carina triangularly arcuate, suture distinct, basal carina very sharp, not sinuate, the clypeus is scrobiculate-punctate, the frontal part foveolate with the intervals plainly granulose; prothorax conspicuously serrate laterally, ampliated there in the centre, but only moderately narrowed thence to the sharp basal angle, covered with cicatricose punctures, smaller, very scabrose and closely set along the anterior part, the punctures in the discoidal part, and reaching as far as the base, are broader, and although slightly irregularly set, are divided by a smooth space nearly equal in width to the diameter of the punctures, and there is in both sexes a longitudinal smooth, raised line in the posterior discoidal part, the hairs on the head and prothorax are very minute, but the fringe of setose hairs along the outer margins of the prothorax is long; scutellum with two lateral rows of punctures; elytra elongated, very little ampliated laterally in both sexes, deeply punctured, the

punctures bearing each a most minute hair, intervals narrower than the punctures, and slightly raised along the sutural part only; pygidium covered with closely set, somewhat deep punctures similar in either sex; abdomen of the male slightly depressed in the middle, penultimate abdominal segment not wider than the one preceding, last one two-thirds as broad as the penultimate, and convex in both sexes; pectus moderately densely villose; tarsi long, upper tooth of all the claws shorter and more slender than the lower. The female is distinguished from the male merely by the more convex abdomen and the slightly shorter tarsi.

Length 15½–16 mm.; width 7½–7¾ mm.

Hab. Southern Rhodesia (Manica).

SCHIZONYCHA AFFINIS, Bohem.,*

Plate LI., fig. 66.

Insect. Caffrar., ii., p. 103.

S. oblonga, Bohem., loc. cit., p. 102.

Testaceous, with the clypeal part slightly infuscate, palpi and antennæ sub-flavescent, club very long in the male; clypeus slightly blunt in front in the male, semicircular in the female, beset, like the frontal part, with deep non-coalescing sub-foveolate punctures, basal part impunctate along the carina, frontal carina transverse, distinctly bi-sinuate, no clypeal suture, basal carina also bi-sinuate in the male, less so in the female, prothorax ampliated laterally past the median part, and with the basal angles distinctly rounded, covered all over with equi-distant, somewhat closely set, round punctures, which are, however, faintly scabrose along the anterior margin; outer margin indistinctly serrulate; scutellum with a marginal row of punctures; elytra elongated, sinuate laterally before the median part, normally punctured, and with the hair in each puncture hardly visible; pygidium beset with round punctures nearly similar in both sexes, but varying in number and closeness in individuals; pectus with long, appressed flavescent hairs; abdominal segments with hairs longer and more numerous in the male, the penultimate segment is broader than the one preceding in both sexes, the ultimate one is transverse, narrow, and depressed in the male, bulging and wider in the female, the apical margin is sinuate in both but more deeply in the male; tarsi long, upper tooth of anterior claw shorter by one-half than the lower and not so robust, that of the intermediate and posterior legs longer than the lower and equally robust. This species

* In the Explanation of the Plate, in vol. xii., p. 908, this species is erroneously named *S. perfidiosa*.

is closely allied to *S. infantilis*, but is differentiated by the shape of the genital armature.

Length 12–13 mm.; width 6–6¼ mm.

Hab. Cape Colony (Kimberley); Orange River Colony (Bothaville); Transvaal (Rustenburg, Lydenburg); Southern Rhodesia (Buluwayo, Salisbury).

Boheman's co-type of *S. oblonga* does not differ in any appreciable degree from *S. affinis*, except that the clypeus is a little more arcuate, but this character seems to vary somewhat in individuals of the same species.

Schizonycha languens, n. spec.,
Plate LI., fig. 63.

Shape, size, colouring, and sculpture of *S. affinis*, the punctures of the prothorax are only slightly deeper. But in spite of this great resemblance to *S. affinis*, the difference in the shape of the genital armature of the males of the two species is very great (*vid.* pl. li., figs. 63, 66); the clypeus is blunt in front instead of being semicircular, and the last abdominal segment is somewhat broad and swollen.

Length 11–11½ mm.; width 5½–6 mm.

Hab. Orange River Colony (Bothaville); Transvaal (Rustenburg).

Schizonycha ignava, n. spec.,
Plate XLIII., fig. 56.

Pale testaceous, but with the head, prothorax, and legs light testaceous-red; clypeus blunt in front, hardly sinuate, but with the sides broadly rounded, carina transverse, plainly sinuate in the centre, no suture, basal carina sharp, projecting triangularly in the middle, the clypeus is closely foveolato-punctate and the frontal part plainly asperous; club of antennæ long in the male; prothorax ampliated laterally and rounded slightly past the median part, very much less attenuated thence to the sharp basal angle than in the anterior part, covered laterally and broadly along the anterior margin with closely set, asperous punctures, but on the discoidal part the punctures from about the median part to the base are round and non-asperous, in the centre of the disk there is an elongated smooth patch; scutellum pluri-punctate on each side; elytra moderately elongated, slightly ampliated laterally before the median part, deeply punctured, the diameter of the intervals lesser than that of the punctures, and coriaceous in the dorsal part; pygidium with moderately closely set punctures, leaving a median smooth longitudinal band; penultimate abdominal segment slightly broader

than the one preceding, ultimate one somewhat broad and convex; pectus not densely villose; the anterior tarsi are wanting in both my examples; the upper tooth of the intermediate and posterior claws is longer and of the same width as the lower.

Length 8½–11 mm.; width 5–6¼ mm.

Hab. Southern Rhodesia (Victoria Falls); Transvaal (Lydenburg).

Schizonycha egens, n. spec.,
Plate XLIII., fig. 24.

Brick-red, with the elytra slightly lighter than the prothorax, hair in the punctures very minute; antennal club of the male as long as all the joints taken together; clypeus truncate in front and very slightly sinuate, very little attenuated laterally, clypeal carina arcuate, suture plain, basal carina indistinct, clypeus sub-scrobiculate, frontal part more closely scrobiculate, with the intervals scabrose; prothorax ampliated laterally past the median part, sub-serrate along the outer margins, covered all over with round, equi-distant punctures having nearly smooth, non-raised intervals, these punctures are of equal size, except along the anterior margin where they are narrower; scutellum with one lateral row of broad punctures; elytra somewhat elongated and of normal shape, intervals of the punctures very slightly raised along the suture; pygidium with somewhat irregularly set foveate punctures; abdomen a little depressed in the centre, deeply and closely punctate laterally; penultimate segment wider than the antepenultimate, last one swollen and as broad as the penultimate; pectus hardly hairy; tarsi long, upper tooth of all the claws very slender and shorter than the lower.

Female unknown.

Length 10½ mm.; width 5 mm.

Hab. Transvaal (Potchefstroom).

This species greatly resembles *S. infans*, but differs by the absence of a basal cephalic carina, the smooth intervals of the punctures in the discoidal part of the prothorax, and the much broader and more swollen ultimate abdominal segment; the shape of the valves of the penis is not the same as that of *S. infans*.

Schizonycha paupercula, n. spec.,
Plate XLIII., fig. 42.

Somewhat light testaceous-red, moderately shining and with the hairs in the punctures of the upper side small, yet very distinct, those on the under side have a conspicuous greyish-white scale;

clypeus somewhat oblique laterally, truncate in front with the outer sides somewhat broadly rounded, very slightly emarginate in the middle in both sexes, clypeal carina arcuate, no clypeal groove, no basal carina or groove, the surface, except the basal part, is closely scrobiculate ; antennal club of antennæ flavescent, long in the male ; prothorax plainly ampliated and rounded laterally past the median part, and less obliquely attenuated thence towards the sharp basal angle than towards the anterior, outer margin somewhat finely serrulate, the whole surface covered with somewhat cicatricose, equidistant punctures, a little more widely set, however, in the discoidal part than on the sides and along the anterior margin, the intervals on the median dorsal part are nearly smooth but much narrower and slightly scabrose on the sides ; scutellum pluri-punctate except at the apex ; elytra elongated, nearly cylindrical in both sexes, very closely and deeply punctured, and with the intervals much narrower than the latter ; propygidium and pygidium very closely and finely punctate in both sexes, each puncture bearing a minute squamulose hair ; pectus not hairy ; abdomen hardly depressed in the centre in the male, not very convex in the female, all the segments are nearly as closely punctured in the middle as on the sides, the penultimate is broader than the one preceding, and the last one is wide and swollen in both the sexes ; the basal tooth of the anterior tibiæ is very small in the male, and almost obliterated in the female ; the tarsi are long, and the upper tooth of all the claws much more slender, especially in the male, than the lower.

Length 11–12½ mm. ; width 5–5½ mm.

Hab. Southern Rhodesia (Sebakwe).

Schizonycha ovampoana, n. spec.,
Plate XLIII., fig. 55.

Testaceous, elytra somewhat paler than the prothorax, head darker ; palpi and antennæ somewhat ferruginous ; head narrow, eyes very large ; clypeus plainly emarginate in front, clypeal carina sub-triangularly arcuate in the middle, suture distinct in the centre of the frontal part, separated there from the apex of the carina by a double row of punctures, and slightly bi-sinuate, basal carina sinuate, surface of clypeus and forehead covered with deep, nearly coalescing punctures except in the centre above the suture ; prothorax ampliated laterally at about the median part, less diagonally attenuated thence towards the basal part than towards the apical, serrulate and moderately densely villose along the outer margin, basal angle sharp, surface covered with deep, sub-foveolate punc-

tures slightly cicatricose in the anterior part, separated by a space equal to their diameter, in the centre there is a somewhat plain, smooth line having the appearance of being slightly raised; scutellum with a marginal row of deep punctures, a basal one, and two or three punctures transversely set; elytra elongated, normally sinuate laterally, deeply punctured with the intervals non-coriaceous, and the hairs in the punctures extremely small; pygidium covered with moderately deep, sub-cicatricose, equally distant punctures separated from each other by a space equal to their diameter; pectus not densely hairy; abdominal segments with long hairs in the punctures; penultimate segment almost twice as broad as the one preceding, last one flat, moderately broad; upper tooth of all the claws shorter and more slender than the lower in the male, the only sex known to me.

Length 20 mm.; width 7 mm.

Hab. Ovampoland (Omrramba).

Schizonycha spuria, n. spec.,
Plate LI., fig. 74.

Black, moderately shining, palpi, antennæ, and legs piceous; clypeus blunt in front and very slightly sinuate in the middle, clypeal carina arcuate, suture distinct, straight, basal one not sinuate, surface covered with scabrose, foveolate, nearly contiguous punctures bearing each a very distinct squamose greyish hair; prothorax moderately ampliated laterally at about the median part, much less diagonally attenuated thence towards the base than towards the anterior part, basal angle sharp, outer margin plainly serrate and fringed often with dense fulvous hairs, surface covered with irregular, transverse, slightly raised smooth folds in the intervals of which are some slightly scabrose foveæ bearing each an appressed, very distinct squamose greyish hair; scutellum raised in the centre, the lateral punctures squamose; elytra not much elongated, cylindrical, not sinuate laterally, covered with deep punctures bearing each a conspicuous squamose greyish hair, from the base to past the median part the intervals are raised, and coriaceous; pygidium impunctate; pectus clothed with long, moderately dense, light fulvous hairs; abdominal segments with a few hairs, and some squamose greyish scales laterally, the two intermediate segments depressed in the centre, penultimate one a little wider than the one preceding, last one moderately wide, flat; tarsi moderately long, upper tooth of all the claws shorter and much more slender than the lower.

Female unknown.

This species resembles very closely *S. quæsita*, the upper tooth of the claws is, however, slender and shorter than the lower, and the shape of the anterior claws of the male, and also of the genital armature, is very different. The apical point of the branches of the forceps is bent almost at right angles, and the lateral emargination is much more densely hairy than represented in the figure.

Length 12–13 mm.; width 7–7¼ mm.

Hab. Transvaal (Rustenburg, Lydenburg.)

SCHIZONYCHA NATALENSIS, Brensk.,
Plate LI., fig 71.

Berl. Ent. Zeit., 1896, p. 352.

Male: Piceous, or chestnut-brown, somewhat shining; clypeus sinuate in front, clypeal carina arcuate, suture plain, no basal carina, surface of the clypeus closely foveolate, the foveæ more scrobiculate on the frontal part; prothorax not much ampliated laterally in the median part and only slightly sinuate laterally towards the base the outer angle of which is sharp, the outer margin is serrate, and the ciliate hairs neither numerous nor long, the surface is covered with deep, round, sub-foveate punctures separated from each other by a space equal to their diameter, and a little wider in the median posterior part of the disk than on the anterior or on the sides, the walls are very slightly and irregularly raised and smooth; scutellum with a lateral row of punctures; elytra not much elongated, somewhat ampliated laterally past the median part, in both sexes, covered with deep, closely set punctures separated by a space smaller than their diameter and bearing each a most minute hair, the intervals in the discoidal part are slightly coriaceous; pygidium with deep, round, broadly scattered punctures; pectus with only a few appressed hairs; abdominal segments closely punctured except along the median part, where it is very little depressed, penultimate segment broader than the one preceding, last one moderately broad and somewhat convex; tarsi somewhat long, upper tooth of all the claws more slender and shorter than the lower.

Length 12–14 mm.; width 6½–7½ mm.

Hab. Natal (Durban).

Female differs from the male in the prothorax being a little more ampliate laterally, and having in the centre a somewhat plain, impunctate, longitudinal line, the elytra are more convex and much

more ampliated laterally, and the upper tooth of all the claws is as long and as robust as the lower one. The original description was made from a female example.

Schizonycha russula, Bohem.,
Plate XLIII., fig. 12.
Insect. Caffr., ii., p. 100.

The description of the two series of *S. natalensis* suits exactly this species, the male, however, has quite differently shaped genital clasps, and the club is much more elongated; in the female the longitudinal impunctate smooth band of the prothorax is much more marked than in the same sex of *S. natalensis*. Boheman's type is a female.

Length 9–11 mm.; width 5–6 mm.

Hab. Transvaal (Johannesburg).

Schizonycha spectabilis, n. spec.,
Plate XLIII., fig. 39.

Testaceous-red, or chestnut-brown with the elytra and abdomen testaceous, very shiny; club of antennæ flavescent; all the punctures on the upper side and the abdomen bear a most minute hair, and the margins of the prothorax, which are strongly serrate, have a fringe of ciliate hairs, the pectus is clothed with moderately long, flavescent hairs which are appressed, and are somewhat more squamose on the coxæ and the episterns; the frontal part is roughly scabrose-foveolate, the clypeus blunt and slightly sinuate in the centre, the clypeal carina is sinuate in the median part in the male, not in the female, moderately arcuate, and the median part of the suture is distinct, the basal carina is sharp, and the space behind smooth; the prothorax is not much ampliate laterally in the middle, and only very slightly sinuate thence towards the sharp basal angle, in the anterior part it is covered with cicatricose irregular fossules, has a transverse median impunctate space and a supra-basal parallel one, and the interval between the two spaces is filled with cicatricose, irregular fossules; scutellum with two or three punctures on each side in the male, impunctate in the female; elytra elongate, punctures deep; propygidium with two transverse, apical rows of small punctures; pygidium almost glabrous, with scattered, somewhat shallow punctures, in the male, the punctures more closely set, more numerous, and deeper in the female; penultimate abdominal segment not broader than the one preceding, ultimate one swollen in both sexes; tarsi very long; upper claw

of tarsi slender, slightly shorter than the lower in the anterior tarsi of both sexes; basal outer tooth of anterior tibiæ very short in the male; in the female the last abdominal segment is very broad, and divided in two by a deep suture bearing a row of distant appressed setæ.

Length 18–20 mm.; width $8\frac{1}{4}$–10 mm.

Hab. Southern Rhodesia (Sebakwe).

Schizonycha algoa, n. spec.,
Plate XLIII., fig. 83.

Very dark chestnut-brown, with the elytra slightly lighter, antennæ ferruginous, clypeus arcuate, but truncate and slightly sinuate in the centre, clypeal carina not much arcuate, somewhat triangular and having no impressed line behind, the frontal part is covered with broad, round, contiguous punctures, leaving a small smooth space at the back of the median part of the clypeal carina, and the clypeus is similarly punctured, but there is an impunctate transverse band along the clypeal carina; prothorax convex, not narrowed laterally from the median part to the sharp basal angle, serrulate along the outer margin which is fringed with somewhat long setæ, and covered with closely set foveolate punctures a little smaller on the anterior part and sides than on the posterior; scutellum with two rows of punctures impinging on each other; elytra plainly ampliated laterally past the median part, and covered with deep punctures; pygidium deeply and somewhat closely punctured; abdomen closely and finely punctate; penultimate abdominal segment not wider than the one preceding; last joint very swollen; metasternum and femora densely villose; tarsi long, upper tooth of all the claws slightly longer than the lower, and a little more slender.

Length $14\frac{1}{2}$ mm.; width $7\frac{1}{2}$ mm.

Hab. Mozambique (Lourenço-Marquez).

Schizonycha zambesiana, n. spec.,
Plate XLI., fig. 81.

Testaceous-red or chestnut-brown, each puncture with a short white squamose hair; clypeus rounded, obliquely narrowed from the base laterally, but truncate in front and plainly sinuate there in the middle in both sexes, clypeal carina not much arcuate, clypeal suture distinct, basal carina plain, transverse in the male, slightly bi-sinuate in the female, clypeus and head coarsely foveolate, except behind the basal carina, where the latter is granulose; prothorax a little ampliate laterally at about the median part, but nearly straight

thence to the sharp, basal angle, closely punctate and somewhat scabrose in the anterior part and on the sides, but with the punctures a little more scattered and not scabrose in the posterior, in the discoidal part is a smooth space, sometimes very plain; scutellum with two series of punctures; elytra elongate, sub-cylindrical, punctures deep; pygidium with shallow punctures separated from each other by a smooth space broader than their own diameter in the male, much deeper in the female; sides of abdomen, coxæ episterns, and metasternum covered with very closely set elongate white scales; penultimate abdominal segment a little wider than the preceding one, ultimate segment moderately broad, slightly swollen, and more punctured in the female than in the male; upper tooth of anterior claws much more slender than the lower, and nearly of equal length in both sexes, club of antennæ long, but a little shorter in the female than in the male.

Length 13–15 mm.; width $6\frac{1}{2}$–7 mm.

Hab. Southern Rhodesia (Victoria Falls, Sebakwe).

The chestnut-brown examples resemble much *S. profuga*, but the species is easily recognised by the white scales covering the sides of the abdomen and metasternum, the coxæ and episterns.

Schizonycha salisburiana, n. spec.,
Plate XLIII., fig. 38.

Light brick-red, with the elytra pale testaceous, clypeus slightly infuscate, antennæ flavescent; clypeus broadly rounded laterally, obtuse in front, nearly straight in the male, feebly sinuate in the female, clypeal keel very high, broadly triangular, reaching the outer margins in the male, not in the female, vertex of head conspicuously keeled, surface covered with shallow punctures in the male and deep ones in the female; prothorax of the normal shape and very plainly serrate laterally, covered with small cicatricose punctures, nearly equi-distant in the centre of the disk in both sexes, and slightly asperous along the anterior margin; scutellum punctate; elytra cylindrical in the male, moderately ampliated laterally in the female, covered with equi-distant punctures bearing a minute greyish hair, and separated by a smooth space equal in width to their diameter; pygidium somewhat broadly and deeply pitted, penultimate abdominal segment one-third wider than the antepenultimate one in both sexes; anterior tibiæ tri-dentate outwardly, tarsi very long; upper claw of all the tarsi more slender than the lower one in both sexes.

Length 14–15 mm.; width 6–$7\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury).

This species is closely allied to *S. zambesiana.* The clypeal carina is triangular, while in *S. zambesiana* it is only very slightly arcuate, and the pectus is moderately hairy instead of being squamose; the clasps of the genital organs are differently shaped (*cf.* fig. 38, pl. xliii., and fig. 81, pl. xli.).

Schizonycha elegans, n. spec.

Rusty-red, with the elytra, abdomen, and club of antennæ testaceous; clypeus broadly truncate and deeply sinuate in the anterior part, clypeal carina arcuate, basal one sharp, clypeus deeply and closely punctured, the punctures asperous, frontal part with plainly scabrose punctures, each puncture bearing a small greyish-white hair similar to those on the prothorax and elytra; prothorax not narrowed laterally from the median part to the base, but slightly sinuated above the basal angle, and with the outer margin serrulate, covered with closely set scabrose punctures in the anterior part, and by slightly broader and more cicatricose ones in the posterior, the latter being divided in the discoidal part by irregular, slightly raised smooth intervals; scutellum punctate laterally; elytra narrow, very elongate, the punctures are very deep; pygidium with a few faint lateral punctures; punctures on the sides of the abdomen numerous, and bearing each a short greyish hair; metasternum briefly yet somewhat densely villose; basal tooth of anterior tibiæ not very strong, yet distinct; tarsi very long, upper tooth of all the claws shorter than the lower and more slender.

Length 15½–16½ mm.; width 7–8 mm.

The genital armature of this species greatly resembles that of *S. caffra,* but the two lobes are a little more elongate, and are less deeply sinuate laterally; the shape of the clypeus is very different in the two species.

Hab. Transvaal (Rustenburg); Mozambique (Lourenço-Marquez).

Schizonycha furva, n. spec.,

Plate XLI., figs. 60, 61.

Ferruginous, with the elytra redder-brown, club of antennæ ferruginous, each puncture on the upper and under side with a most minute hair, but the pectus is slightly pubescent; clypeus somewhat small, truncate, slightly sinuate in front, clypeal carina moderately arcuate but with the suture distinct for the greatest part of the width, basal carina indistinct, both the head and the clypeus are covered with very closely set round punctures; prothorax slightly

ampliate laterally past the median part, and only very slightly attenuate obliquely thence to the sharp basal angle, covered with nearly equi-distant round punctures, deeper on the sides, the margins of which are not very distinctly crenulate; scutellum covered with broad punctures except at the apex; elytra a little ampliated laterally in the posterior part, deeply punctured; pygidium covered on each side with foveolate punctures, leaving, however, a longitudinal, narrow, median smooth space; abdominal segments closely punctured except for a narrow, median space, each puncture bearing a hair a little longer than those on the upper side, penultimate segment broader than the preceding, apical one swollen; tarsi long, upper claw of the anterior tarsi very slender and shorter than the lower.

Female unknown.

Length 11½ mm.; width 6 mm.

Hab. ? Cape Colony.

SCHIZONYCHA NOSCITATA, n. spec.,
Plate XLIII., fig. 43.

Chestnut-brown; head and prothorax ferruginous, each puncture on the upper side bears a whitish, small, yet conspicuous hair, the ciliæ along the outer margins of the prothorax and of the anterior part of the elytra are long, and the pectus is very pubescent; club of antennæ flavescent; frontal part of the head and also the clypeus very closely and deeply punctured, the punctures non-granulose, the former is blunt in the median anterior part, but hardly sinuate, the clypeal carina is very arcuate, and somewhat angular in the middle; the basal carina is not much raised, and is grooved; prothorax moderately rounded laterally at about the median part, very little narrowed, and not sinuate thence to the basal angle, covered with irregular, round, cicatricose punctures set somewhat closely along the anterior margin and the sides, but much more scattered and broader in the posterior, and having there a median, smooth, somewhat raised space, and a few smaller similar areas across; the outer margins are serrate, more strongly so in the anterior than in the posterior part; scutellum with two irregular lateral rows of punctures; elytra ampliate laterally from about the median part, the punctures deep; pygidium with scattered, fairly deep punctures; abdominal segments as closely and numerously punctured in the median part as on the sides, penultimate one wider than the preceding, last one broad, very swollen; tarsi long. The claws are missing in my male example. The female is unknown.

In general appearance this species resembles *S. spuria* and *S. rufina*, but the prothorax is not narrowed laterally between the median and the basal part as in these two species, and the shape of the genital armature is also different.

Length 17 mm.; width 9 mm.

Hab. Cape Colony (? Namaqualand).

SCHIZONYCHA VALVATA, Brensk.,
Stett. Ent. Zeit., 1898, p. 353.

This species, described from a female example, is very closely allied to *S. noscitata*, but while in *S. noscitata* the basal tooth of the anterior tibiæ is very distinct, it is almost obliterated in *S. valvata*, although a female; the shape and sculpture of the head are similar, the basal carina has also a distinct groove; the punctures are nearly the same, but a little more closely set on the discoidal part which bears a longitudinal smooth line, but has no areolet; the scutellum and the elytra are identical, and the hair in the punctures is small but distinct; the pygidium is punctured alike, but in the centre there is a broad, shallow, depressed, longitudinal band, and also a small, lateral impression on each side of the base; the last segment of the abdomen is moderately broad, transverse, and not swollen; the tarsi are as long as in the male (the hind ones are missing in the type), the upper tooth of the anterior and intermediate claws is deeply cleft, narrower and shorter than the lower.

Length 17½ mm.; width 9 mm.

The type is the only example of this species which I have seen, and is labelled "S. Af." "Coll. Jekel."

SCHIZONYCHA RUGOSA, Brensk.
Stett. Ent. Zeit., 1898, p. 353.

Chestnut-brown, with the elytra somewhat light testaceous; antennæ and palpi sub-flavescent; clypeus only slightly blunted in front, and somewhat narrow owing to the strongly arcuate clypeal suture; the suture is distinct, and so is the basal carina which is grooved, the surface of the clypeus is closely scrobiculato-foveate, and the frontal one granulose; prothorax scarcely ampliated laterally in the middle, nearly straight thence towards the basal angle which projects, plainly serrate laterally from the anterior angle to about the median part, and covered all over with small, closely set granules, giving it a very scabrose appearance, supra-basal folds conspicuously raised; scutellum pluri-punctate; elytra elongated, a

little ampliated laterally before the median part, deeply punctured and with the hair in the punctures quite distinct; pygidium somewhat closely punctate, except at the apex which is slightly coriaceous; abdomen slightly impressed in the centre at the base, penultimate segment much broader than the one preceding, last segment wide, swollen; pectus with a moderately long, appressed pubescence; anterior tibiæ with the basal tooth almost obliterated, tarsi long, upper tooth of all the claws very slender and shorter than the lower.

Shape, size, and colour of *S. indotata*, from which it differs mainly by the sculpture of the prothorax, which is closely scabrose all over; the shape of the genital armature is almost identical with that of *S. fatidica*, which it also closely resembles, but the left branch of the forceps is somewhat broader.

Length 16 mm.; width 8 mm.

The type, the only example I have seen, is labelled "Natal."

Schizonycha indotata, n. spec.,
Plate XLIII., fig. 67.

Chestnut-brown, with the head fuscous and the prothorax rusty-red; clypeus broadly truncate in front, but with the sides well rounded, not emarginate in the centre, clypeal carina moderately arcuate, suture distinct, basal carina distinct but not very sharp; the part behind the basal carina is smooth, but the frontal part is plainly granular, and the clypeus covered with contiguous, somewhat scabrose punctures; prothorax very little obliquely narrowed laterally from the median to the apical part, nearly straight from the middle to the basal angle, but still having a slight sinuation above the angle which is very sharp; the punctures are granular and very closely set in the anterior part, larger, cicatricose, and set moderately close to each other in the posterior; there is a faint, small, smooth space in the centre of the disk; scutellum pluri-punctate laterally; elytra elongate, sub-cylindrical, deeply punctured, each puncture, like those on the head and prothorax bearing a minute greyish hair, and separated from each other by a space equal in width to their diameter; pygidium with scattered, shallow, round punctures, but with the apical part impunctate; punctures on the sides of the abdomen squamulose, but the penultimate segment which is much wider than the one preceding, has a few long hairs, and the metasternum is villose; tarsi very long, upper tooth of claws shorter than the lower, and more slender; basal outer tooth of anterior tibiæ almost obliterated.

Length 17 mm. ; width 8 mm.

Hab. Southern Rhodesia. Exact locality unknown ; Transvaal (Lydenburg).

SCHIZONYCHA FATIDICA, n. spec.,
Plate XLIII., fig. 45.

This species is very much like *S. indotata*, the shape and the colour are identical, but the clypeus is very plainly sinuate in the centre, the clypeal carina, and also the sculpture of the head are similar, but not that of the prothorax, which is narrowly scabrose along the anterior margin only, the other punctures are cicatricose and divided by wavy, smooth, unequal round intervals, imparting to the surface a roughly scrobiculate appearance ; in the centre there is an elongated, raised, smooth space, and one or two areolets on each side of it; the supra-basal folds are very raised, the basal angles project very much, and the posterior lateral part is on that account more deeply sinuate; the scutellum and elytra are punctured alike, and so is the pygidium ; the penultimate segment of the abdomen is also wider than the preceding, and has a few long hairs ; the numerously punctured abdominal segments are squamulose, and the metasternum is very densely hairy ; tarsi very long, upper tooth of claws shorter and much more slender than the lower. The genital armature of the male is on the same plan as that of *S. indotata*, but of somewhat different shape; the basal outer tooth of the anterior tibiæ is very blunt.

Length 16–19 mm. ; width 8–9½ mm.

Hab. Cape Colony (Kowie, Graham's Town, Port St. John).

This species is labelled *S. capensis*, Burm., in the Candèze Collection.

SCHIZONYCHA SCABIOSA, n. spec.,
Plate XLIII., fig. 44.

Chestnut-brown, each puncture bearing a minute whitish hair; pectus somewhat densely pubescent; club of antennæ flavescent; body sub-cylindrical ; head and clypeus closely scabroso-punctate, clypeal carina arcuate, suture very fine, basal carina distinct ; prothorax a little ampliated laterally in the middle, very little narrowed thence, but slightly sinuated above the basal angle, margins strongly serrate in the anterior part, the surface is covered with cicatricose punctures asperous in the anterior part, larger and smoother in the posterior, where they are divided by narrow, smooth, irregular walls, and in the posterior part of the disk there is a smooth, median longi-

tudinal band; scutellum with a duplicate lateral row of punctures; elytra deeply punctate; pygidium with deep, somewhat closely set foveolate punctures; all abdominal segments deeply and closely punctured all over, penultimate one broader than the preceding, last one very swollen; tarsi long; upper claw of anterior ones much narrower than the lower, and slightly shorter; that of the posterior and intermediate longer and very little less slender. Female unknown.

The sculpture of the prothorax is not unlike that of *S. puncticollis*, which it somewhat resembles, but in the latter the punctures in the posterior part are not divided by smooth walls, and the prothorax itself is much more ampliated in the middle, and distinctly narrowed towards the base. The shape of the genital armature is also very different.

Length 14–14½ mm.; width 6¾–7 mm.

Hab. Cape Colony (Uitenhage).

SCHIZONYCHA CAFFRA, n. spec.

Testaceous, with the head and prothorax somewhat brick-red, club of antennæ flavescent, shining, and having a minute hair in every puncture, basal part of prothorax with a fringe of long flavous pubescence; pectus very densely villose; clypeus truncate in the anterior part and only very slightly sinuate there, clypeal carina arcuate, basal one somewhat sharp but not much raised, surface of the clypeus and frontal part cicatricoso-punctate; prothorax not narrowed laterally from the median to the basal part, but slightly sinuate above the basal angle, which is sharp; the outer margin is finely crenulate serrate, and the ciliæ are long, it slopes a little more than usual towards the anterior part, and is covered with equidistant round punctures slightly narrower in the anterior than in the posterior part, and separated by a smooth space equal in width to their own diameter; scutellum with only a few punctures; elytra moderately elongate, deeply punctured; pygidium sub-coriaceous, and sprinkled with a few shallow punctures; tarsi long, upper tooth of anterior tibiæ very fine, not deeply cleft, and thus very much shorter in the male than the lower one, while in the intermediate and posterior tarsi it is longer and not more slender than the lower, which is sub-perpendicular; in the female the tarsi are much shorter, and the claws of the anterior and posterior legs are similar to those of the hind ones in the male; the penultimate joint of the abdominal segment is a little wider than the one preceding.

The genital armature is of the same type as that of *S. fatidica*, but the right branch is more sinuate outwardly.

Length 15–16 mm.; width 7–8½ mm.

Hab. Cape Colony (Port Elizabeth, Graham's Town).

Schizonycha debilis, Burm.,
Handb. d. Entomol., iv., 2, p. 272.

Colour, size, and shape of *S. caffra*, the description of which applies very well to the present species, except for the claws of the tarsi of the male, the only sex known to me. The anterior claws are of the same shape as those of *S. caffra*, *i.e.*, they are divaricating and cleft at the tip, the upper tooth is not deeply cleft, is very slender and shorter than the lower, and those of the intermediate and posterior legs have the same shape, instead of the upper one being very long and as robust as the lower, which is short and of equal width. The genital armature is also slightly different in shape from that of *S. caffra*, and is very much like that of *S. fatidica*.

Length 15–16 mm.; width 7½–8 mm.

Hab. Cape Colony (Transkei).

Schizonycha increta, n. spec.,
Plate XLVI., fig. 54.

Elongate, pale testaceous, but with the head and prothorax somewhat brownish, and both covered with closely set, squamiform, greyish hairs springing from the punctures, the elytra have similar hairs, which are not, however, quite so densely set; clypeus rounded in the anterior part in the male, blunter but not emarginate in the female, covered with deep punctures, the clypeal carina is sharp, and so is the basal one, the space behind the latter is impunctate; prothorax ampliate laterally slightly past the median part, and only a little more diagonally narrowed thence towards the anterior angle than towards the basal one, covered with deep punctures separated from each other by a space equal to their own diameter, but finer and more closely set on the sides, above the basal part there is on each side a conspicuously impunctate, shining, transverse fold; scutellum as closely punctured as the discoidal part of the prothorax; elytra elongated, plainly sinuate laterally at about one-third of the length, and a little ampliated there, covered with deep punctures less closely set than on the prothorax, being separated from each other by a space broader than their own diameter; basal part of propygidium, pygidium and abdomen moderately closely punctured with the punctures squamiferous as on the upper side;

pectus not densely pubescent, and with whitish scales on the sides; anterior tibiæ bi-dentate, not sinuate above the basal tooth, tarsi long, upper claw of anterior tarsi narrower, but as long as the lower; club of antennæ very long in the male, shorter, but still elongated in the female; penultimate abdominal segment slightly wider than the preceding one, ultimate one somewhat swollen in the female.

Length 12–13¼ mm.; width 6–7 mm.

The somewhat dense covering of sub-squamose white hairs on the upper side is very plain.

Hab. Mozambique (Lourenço-Marquez, Beira).

Schizonycha confinis, n. spec.,
Plate XLIII., fig. 40.

Siena-brown, clothed above and under with very dense greyish, very squamiform hairs, less scale-like on the metasternum; clypeus with the margins highly reflexed, truncate and sinuate in the middle in front, distinctly angular laterally at the base, and having only a few shallow punctures, no clypeal suture, clypeal carina not much arcuate, frontal part very closely punctured, basal carina moderately sharp, basal space impunctate; prothorax ampliated laterally in the middle, but not much attenuated thence towards the basal angle, covered with small, nearly contiguous round punctures, and having no raised transverse supra-basal fold; scutellum more rounded at the apex than in the other South African species, and very closely punctate all over; elytra sub-cylindrical, the punctures are deep, but small; pygidium also closely punctured, the punctures equal and separated by an interval not equal to their own diameter; penultimate abdominal segment broader than the one preceding, ultimate one not swollen; upper tooth of anterior tarsi slender, and not quite as long as the lower one; anterior tibiæ bi-dentate outwardly Female unknown.

This species has a covering of still denser squamulose hairs than *S. increta*, the clypeus is more truncate, and, owing to the highly reflexed anterior margin, seems to be hollow; like *S. inverta*, it has no impunctate, raised fold above the basal part of the prothorax.

Length 14 mm.; width 7 mm.

Hab. Southern Rhodesia (Sebakwe).

Schizonycha divulsa, n. spec.,
Plate XLI., fig. 79.

Narrow, sub-parallel, pale testaceous, with the head, prothorax, and legs slightly testaceous-red; covered with minute whitish hairs

issuing from the punctures on the upper and under sides; clypeus truncate and emarginate in front, covered with closely set scabrose punctures, clypeal carina sharp, basal carina distinct, the space between the two is closely granulose, the basal part beyond the basal carina is smooth; club of the antennæ of the male very long; prothorax very little ampliated laterally slightly past the median part, covered with scabrose punctures along the anterior part for about half the length, and thence by more scattered and non-scabrose ones to the basal part, each one of these punctures bears a very small squamiform hair, and above the base there is on each side a smooth, shining fold; scutellum with one or two semicircular series of deep punctures; elytra sub-cylindrical, covered with deep round punctures bearing a minute squamiform hair, and separated from each other by a space about equal to their own diameter; pygidium covered with somewhat closely set, round punctures; abdominal segments covered especially on the sides with very numerous setiferous punctures, pectus with appressed greyish sub-squamiform hairs; penultimate abdominal segment wider than the one preceding; anterior tibiæ bidentate, tarsi very long, upper claw of all the tarsi very slender and much shorter than the lower.

Length 11½–12 mm.; width 5½ mm.

Hab. Transvaal (Rustenburg); Southern Rhodesia (Sebakwe).

Schizonycha inops, n. spec.,
Plate XLIII., fig. 60.

The description of *S. divulsa* applies in its entirety to this species; the squamulose hairs of the prothorax are only slightly thicker, but the genital armature of the two species differ considerably (*cf.* pl. xli., fig. 79, and pl. xliii., fig. 60).

Length 12 mm.; width 5¼ mm.

Hab. Ovampoland (Omrramba).

Schizonycha nigricornis, Burm,
Plate XLIII., fig. 48.
Handb. d. Entomol., iv., 2, p. 272.

Fuscous or dark brown, with the legs a little redder than the elytra; antennæ dark ferruginous; all the punctures on the upper and under sides bearing a whitish squamiform hair; head small, clypeus short, truncate and not emaginate at the tip, clypeal carina sharp and having behind a straight transverse impressed line, basal carina distinct, but not very sharp; the surface of the head is covered with somewhat deep, not scabrose foveæ disposed trans-

versely; prothorax convex, not attenuate laterally from the non-ampliated median part to the base, only slightly sinuate above the basal angle, a little narrowed in the anterior part, which is plainly serrate, but the margin of the posterior part is simple, it is covered with scattered punctures somewhat irregular in the discoidal part, but set more closely along the sides, especially along the anterior margin where they are slightly scabrose; scutellum with a few lateral punctures, elytra covered with deep punctures separated from each other by a space a little wider than their own diameter, and bearing each a squamose hair of the same size as those of the head and prothorax; pygidium irregularly plicate longitudinally in the middle, coriaceous, and with scattered squamose hairs; sides of abdominal segments, and metasternum somewhat thickly squamose, penultimate abdominal segment wider than the antepenultimate, anterior tibiæ bi-dentate, tarsi moderately long, upper tooth of all tarsi very minute and very short, lower claw robust; basal joint of hind tarsi short, second one one-third longer.

Length 14–15 mm.; width 7–8 mm.

Hab. Cape Colony. My two examples of this species were collected by Zeyher. The genital armature is not unlike that of *S. vicaria*, but shorter, and the left clasp is considerably wider at apex.

SCHIZONYCHA VICARIA, n. spec.,
Plate XLIII., fig. 54.

Piceous-black, antennæ and tarsi piceous-red; all the punctures bear a white squamose hair; head somewhat small, clypeus broadly truncate, not sinuate in the centre. This species is similar in shape to *S. indotata* and *S. fatidica*, but its nearest ally is *S. nigricornis*, from which it is distinguished by the punctures on the prothorax being more cicatricose, more closely set, more scabrose in the anterior part, and separated on the posterior by irregular, slightly raised, smooth walls; the scutellum has also three or four punctures on each side, but the punctures on the elytra are deeper, and the juxta-sutural space is more coriaceous; the penultimate abdominal segment is wider than the one preceding and has a few long hairs, but the squamose hairs on the sides of the segments are not so plainly squamose, and the metasternum is densely villose; the anterior tibiæ are bi-dentate like those of *S. nigricornis* but more briefly sinuate above the basal tooth; the tarsi are longer, and the upper tooth of the claws is more deeply cleft but also very slender, and, lastly, the two genital armatures vary in shape.

Length 15½ mm.; width 8 mm.

Hab. Cape Colony (Namaqualand).

(*Species which I have not been able to identify.*)

SCHIZONYCHA CORROSA, Burm.,
Handb. d. Entom., iv., 2, p. 270.

Basal joint of hind tarsi a little shorter than the second. "Ovate, broad, dark chestnut, strongly punctate; pectus and femora little fulvo-pilose. Length 5 lin. ♀. South Africa, from Echlon. Very broadly built, especially the prothorax, and on that account the head appears smaller than usual; dark chestnut-brown, coarsely but not very deeply punctate, in each puncture a small, yellow bristle; clypeus evenly rounded, with a raised margin, the middle of the margin somewhat elevated, frontal keel distinctly curved towards the jaws; pronotum broad, especially towards the sides, strongly rounded, the outer margin finely crenulate, and with long ciliæ; elytra with the punctures scarcely more scattered than on the prothorax; pygidium with only a few scattered punctures; legs tolerably short, especially the tarsi of the female; antennal club very small."

SCHIZONYCHA PERFORATA, Burm.,
Loc. cit., p. 267.

"Basal joint of hind tarsi a little longer than the second. Reddish fuscous, shiny, prothorax very densely ruguloso-punctate; elytra regularly but less densely punctate. Length 9 lin. ♂. Longer than *S. tumida*, head very thick and broad, with the high margin lightly incurved in the middle, and with a transversely sharply raised keel in the middle, densely and strongly punctate; pronotum more densely but somewhat more finely punctate, the punctures coalescing to transverse wrinkles, along the middle a smooth band; elytra with much more scattered but not finer punctures; sternum and legs clothed with long, yellow bristly hairs; the margin of the pronotum and elytra beset with stiff, curled, brown ciliæ; antennal club as long as the stalk; tarsi of male very long. Cape of Good Hope."

GEN. ATYS, Reich.,
Galinier's Voyag. en Abyss. Zool., p. 289.

The only character distinguishing this genus from *Schizonycha* is that in the male the antennæ are 9- instead of 10-jointed, owing to the fourth and fifth joints being fused together, but in some females the 10 joints are fairly distinct. Kolbe says that the pectus is glabrous, but in the South African species they are seldom glabrous, being sparingly pilose, and occasionally squamose.

Apart from the number of antennal joints there is nothing to distinguish the insects included in this genus from those included in *Schizonycha*; with one exception, *A ovatula*, they have an elongated, somewhat slender appearance, and the genitalia of the male have their counterparts in those of *Schizonycha*, and are of the same type.

Key to the Species.

Anterior tibiæ tri-dentate.

A^3. Upper tooth of anterior claws as robust, or nearly as robust, as the lower, and longer.

a^2. Frontal part simple.

Body elongated; prothorax without a longitudinal, smooth, median line; third antennal joint hardly longer than the fourth (♂) .. .. *hybrida.*

Body ampliated; prothorax with a plain median longitudinal smooth line; third antennal joint longer than the fourth (♀) *ovatula.*

a^1. Frontal part with a median, longitudinal keel.

Body elongated; antennal club third joint of ♂ longer than pedicel, shorter than the fourth, fifth and sixth .. .. *inscita.*

Body elongated; antennal club of ♂ not longer than pedicel, third joint longer than fourth, fifth, and sixth, not compressed .. .. *inverta.*

A^2. Upper tooth of anterior claws more slender than the lower, and slightly shorter.

Clypeus slightly blunted in front, simple; metasternum sparsely villose .. .. *infans.*

Clypeus plainly blunted in front and sinuate in the middle; metasternum glabrous .. .. *straminea,*

Clypeal carina arcuate, occipital carina blunt, abdominal segments not hairy, second hardly wider than the third .. .. *fallax.*

Clypeal carina sharply triangular, occipital very sharp; abdominal segments with long setæ, second one much broader than the third .. .. *hypocrita.*

Punctures on the upper side bearing a short squamose hair; metasternum with plain whitish scales .. .. *simplex.*

A^1. Upper teeth of anterior claws very slender and very short .. .. *humilis.*

Atys hybrida, n. spec.

Sub-elongated, light testaceous, with the head and anterior part of prothorax darker, antennal club flavescent in the male; clypeus semicircular, frontal keel slightly arcuate, the suture behind it very short, occipital keel slightly sinuate, not grooved, surface

of the whole head deeply punctate; prothorax ampliated and rounded laterally in the posterior part the angles of which are also rounded, outer margins serrulate, surface asperous-punctate in the anterior part and deeply but not closely cicatricose-punctate in the discoidal and also on the sides, the basal smooth ridges are quite plain, and each puncture bears a minute hair; scutellum sparingly punctate; elytra slightly ampliated laterally past the sinuated part, covered with somewhat deep punctures bearing each a small greyish hair and separated from each other by a space about equal to their own diameter; pygidium only sparsely punctate; second abdominal segment plainly broader than the third; pectus sparingly hairy; anterior tibiæ tri-dentate; upper tooth of all the claws more robust and longer than the lower.

The genital armature of the male is almost similar to that of *Schizonycha dissensa*, pl. xliii., fig. 10.

Length 10 mm.; width 6 mm.

Hab. Natal (Durban, Newcastle); Transvaal (Pietersburg).

ATYS INSCITA, n. spec.

Very similar in general appearance to *A. hybrida*, but differs in the shape of the clypeal and frontal keels, the first is very little arcuate, but the suture immediately behind it is produced into a short, acute triangle the apex of which is continued as a longitudinal, only slightly raised keel meeting the strongly median sinuate part of the occipital one; the antennal club of the male is longer than the pedicel, the fourth joint of the male is very much longer than the third and consists plainly of two fused joints, and the fifth and sixth are strongly compressed; in the female, however, these two joints are much more distinctly seen, and it may safely be said that they are not entirely fused; the prothorax has a broad lateral impression on each side of the anterior part and the punctures are smaller and more closely set, and also slightly more cicatricose on the dorsal part; the second abdominal segment is wider than the third, and the segments are more pubescent in the male than in the female. The genital clasps of the male are shaped somewhat in the manner of those of *A. hybrida*, but they are hardly emarginate in the inner part.

Length $10\frac{1}{2}$ mm.; width $5\frac{1}{4}$–$5\frac{1}{2}$ mm.

Hab. Transvaal (Lydenburg); Southern Rhodesia (Sebakwe).

ATYS INVERTA, n. spec.

Light brick-red, with the elytra paler; the hairs in the punctures are extremely minute; clypeus truncate, very slightly sinuate in the

middle, and very short, covered with shallow foveate punctures, the clypeal carina is sharp and not much arcuate, the basal one is fairly distinct and slightly arcuate, the space between the two carinæ is filled with sub-scabrose, irregular foveolate punctures, and the basal part is impunctate; in the male the antennal club is not longer than the pedicel, and the third joint is as long as the other two following, which are not very angular inwardly; prothorax short and broad, not much ampliated laterally in the median part and very little attenuate thence to the basal angle, covered with cicatricose punctures separated by narrow, somewhat sharp walls on the sides, and a little wider and not quite so closely set in the median and basal discoidal parts, there is no smooth transverse fold above the base; scutellum with two series of punctures; elytra sinuate laterally a little above the median part, deeply and closely punctured with the punctures equal in size and separated from each other by a space narrower than their own diameter; pygidium covered with deep, round, nearly contiguous punctures divided by a narrow wall; abdominal segments and metasternum covered with deep, closely set punctures; pectus hardly pubescent; penultimate abdominal segment not wider than the one preceding; anterior tibiæ bi-dentate, tarsi very long, upper claw of the anterior ones slender, but nearly as long as the lower.

Female unknown.

Length 11½ mm.; width 6 mm.

Hab. Mozambique (Lourenço-Marquez).

ATYS OVATULA, Brensk.,
Stett. Ent. Zeit., 1898, p. 360.

Testaceous, but also often chestnut-brown, and with the antennæ rusty-brown; the female of this species, of which I have seen a long series from several localities, is far from rare, but the male is unknown. It is so closely allied to *Schizonycha natalensis* ♀, as well as to *S. mediocris*, that but for the number of antennal joints the three might easily be mistaken for one species; the shape is the same, but the punctures on the prothorax are deeper and more closely set than in *Schizonycha natalensis*, and whereas in that species the discoidal part has no median smooth area, there is a very plain, longitudinal smooth band in *O. ovatula*, and if, as I strongly suspect, the male has 10-jointed antennæ, it will be found to be closely allied to my *S. mediocris*, in which, like in *S. natalensis*, the antennæ are 10-jointed in both sexes, and the males of which have such very dissimilar genital clasps.

Length 10½–13½ mm.; width 6–8 mm.

Hab. Cape Colony (Mossel Bay, Knysna, Graham's Town, Kowie); Natal (Durban).

ATYS INFANS, n. spec.,
Plate LI., fig. 62.

Testaceous-red, with the elytra a little lighter, each puncture on the upper side bearing an extremely minute hair; head somewhat small, clypeus blunt, slightly sinuate, clypeal carina moderately arcuate, suture distinct, basal carina plain, slightly arcuate, clypeus with contiguous foveate punctures, frontal part closely scrobiculate, the narrow intervals scabrose; club of antennæ long in the male; prothorax ampliated laterally at about the median part, attenuated thence towards the sharp basal angle, serrate only along the anterior part of the outer margins, covered with equally distant, round punctures separated by narrow, smooth intervals, somewhat raised, however, in the discoidal part which has a more or less distinct, median, smooth line, these punctures are very little broader in the posterior than in the anterior part; scutellum with a lateral row of punctures; elytra elongated, slightly ampliated laterally before the median part, covered with closely set round punctures divided by a narrow interval not half their diameter, but nearly equal to it, however, in the posterior part, and very slightly raised, especially along the juxta-sutural part, which is on that account slightly coriaceous; pygidium foveato-punctate, the punctures set more or less apart, the distance varying in each of the six male individuals which I have examined; median part of abdomen slightly depressed and with very few punctures on each segment, including the penultimate one which is broader than the antepenultimate, last one very narrow; transverse, plane; pectus with very short, appressed hairs; upper tooth of all the claws more slender and shorter than the lower.

Female unknown.

Length 10–10½ mm.; width 5–5½ mm.

Hab. Transvaal (Johannesburg, ? Pretoria); Natal (Frere).

ATYS STRAMINEA, n. spec.

This species, the female only of which is known to me, greatly resembles *A. hybrida* in shape and size, the clypeus, however, is much more blunt and plainly sinuate in the middle in front; the punctures on the prothorax are almost confluent on the sides and in the anterior part, and the smooth interspaces of the discoidal

part form transverse, somewhat irregular folds not unlike the supra-basal ones, which in this case are partly obliterated, and the punctures along the base are very broad; the penultimate abdominal segment is only slightly broader than the one following, the deeply and closely punctate metasternum is quite glabrous.

Length 10 mm.; width 5½ mm.

Hab. Ovampoland.

Atys fallax, n. spec.

Testaceous, slightly testaceous-red on the head and prothorax; antennæ reddish-brown; clypeus blunt and slightly sinuated at apex, the clypeal keel is sub-transverse, and the suture triangular, the frontal part is somewhat depressed, the occipital keel is fairly plain and the surface is deeply and irregularly punctate; prothorax narrowed from about the median part to the apex, but nearly straight from the middle to the basal angles which are sharp, the outer margin is somewhat obsoletely serrulate, and the punctures are not rugose and are moderately closely set even along the sides; the punctures on the elytra are indistinctly setigerous; those on the pygidium are somewhat scattered, and the second abdominal segment is nearly as wide as the one preceding. The nearest approach to the shape of the genital claspers is perhaps that of *Schizonycha mediocris*, but in *A. fallax* the open space is wider and more ovate, and the apices more slender, more constricted at a certain distance from the tip and quite parallel.

Female unknown.

Length 11½–12 mm.; width 6–6¼ mm.

Hab. Southern Rhodesia (Salisbury).

Atys hypocrita, n. spec.

Closely allied in general appearance and colour to *A. fallax;* the clypeus is also blunt and slightly sinuate in front, but the clypeal keel is very plainly triangular, and the frontal suture quite straight, the occipital is very sharply carinate and slightly triangular in the centre in the male only, the frontal suture is hardly distinct in the female the antennal club of which is plainly 10-jointed; the prothorax is more narrowed from the post-median ampliated part to the sharp basal angle, and the punctation is even more remote, but in both sexes the basal part is smooth and impunctate; the punctures on the elongated elytra bear a very short hair; the pygidium is very deeply and somewhat closely punctate, and the second abdominal segment is very plainly wider than the preceding.

one, and as usual much more deeply punctate in the female than in the male; the shape of the claws is alike in both sexes; the shape of the genital armature of the male is nearer to that of *Schizonycha divulsa* than to that of any of the other South African species, but the apices of the clasps are not incised inwardly at base.

Length 14–15 mm.; width 6½–7 mm.

Hab. Southern Rhodesia (Salisbury).

Atys simplex, n. spec.

Chestnut-red with the elytra chestnut-brown, moderately shining, each puncture on the upper side bears a somewhat plainly squamose hair, and underneath a conspicuous white scale; club of antennæ somewhat infuscate in the female, the only sex known to me; clypeus straight in front, broadly rounded and oblique laterally, not sinuated in the centre of the anterior part, clypeal suture slightly arcuate, suture visible, set very closely to the carina, no distinct basal carina or groove, the clypeus is deeply and closely foveate, the frontal part scrobiculate with the narrow intervals slightly scabrose; prothorax ampliated laterally and rounded past the median part, diagonally narrowed thence towards the sharp basal angle, outer margin non-crenulate, surface covered with somewhat rounded punctures more closely set along the sides and also the anterior margin than in the median and posterior sides of the disk, but with the intervals only slightly raised and non-scabrose, while in the discoidal part they are smooth and not raised; scutellum somewhat closely punctate all over; elytra ampliated laterally before the median part, deeply and closely punctate with the intervals between the punctures somewhat narrow, and not raised; pygidium very closely punctured, the punctures fine and almost contiguous; penultimate abdominal segment broader than the one preceding, last segment half the width of the penultimate, not swollen; pectus without any hairs; tarsi moderately long (♀); upper tooth of all the claws shorter and more slender than the lower.

Male unknown.

Length 11 mm.; width 6 mm.

Hab. Southern Rhodesia (Sebakwe).

Atys humilis, n. spec.

Brick-red, shining, antennæ flavescent; clypeus broadly truncate distinctly emarginate in front, clypeal carina not very arcuate, and having behind a transverse impressed line, the basal carina is distinct but not much raised and covered with somewhat broad,

more or less deep, sub-coalescing, cicatricose punctures; prothorax not narrowed laterally, although slightly sinuate from the median to the basal part the angle of which is sharp, the outer margin is finely serrate, and it is covered with round, equi-distant punctures, and has in the middle a faintly raised, longitudinal, narrow, smooth band; scutellum with one row of punctures often partly obliterated; elytra sub-cylindrical, somewhat deeply punctured; pygidium covered with the exception of the apical part with round punctures separated from each other by a space equal to their own diameter; abdominal segments finely punctulate, penultimate segment not broader than the antepenultimate, last one somewhat narrow, moderately swollen; metasternum very briefly hairy; tarsi long, upper tooth of anterior claws very fine and shorter than the lower, yet deeply cleft. In the male the club of the antennæ is longer than the pedicel and curved.

Length 12–13 mm.; width $6\frac{1}{2}$–7 mm.

Hab. Cape Colony (Graham's Town, East London, Seymour).

Gen. ENTYPOSIS, Kolbe,
Ann. Soc. Ent. d. Belg., vol. 38, 1894, p. 576.

The only difference between this genus and *Schizonycha* is the presence of a deep impression in the anterior part of the prothorax, and of a small tubercle in the centre of the anterior margin; the other characters are met with in many other species of the genus *Schizonycha*.

Entyposis mendax, n. spec.,
Plate XLI., fig. 78.

Shape and colour of *Schizonycha infans*, and very slightly longer, but differentiated by a conspicuous squamose white hair in every puncture on the upper side; on the abdomen and pectus these squamose white hairs are also found, but they are slightly smaller on the lower than on the upper side; the clypeus is nearly straight in front, and slightly sinuate in the centre, and narrow, the clypeal carina is only slightly arcuate, the suture is quite plain, the very sharp basal carina is transverse, and the frontal space narrower than in the other South African species; it is scrobiculate, with the walls of the scrobiculated punctures somewhat asperous, and the punctures on the clypeus are somewhat irregularly foveate and contiguous; prothorax plainly ampliated laterally at about the median part, as much narrowed towards the posterior as towards the anterior part, and with the outer margin very faintly serrate, there is a broad shallow

discoidal impression reaching from the median part to the anterior margin which bears a small tubercle in the centre, and it is covered on the sides with somewhat broad but closely set punctures having scabrose intervals, but the punctures in the median impression are not very closely set, and the intervals are smooth; scutellum not very distinctly punctured; elytra deeply punctured, the punctures are equi-distant, and along the basal part, the intervals are slightly raised; pygidium covered with equi-distant foveolate, shallow punctures separated by a narrow interval; abdomen with squamose hairs laterally, not depressed in the centre, penultimate segment nearly twice as broad as the one preceding, ultimate one broad and convex; pectus without pubescence; anterior tibiæ tri-dentate, basal tooth very short; all the tarsi are missing in the only example I have seen, and which closely resembles *E. montana*, Brsk.

Length 12 mm.; width $5\frac{1}{5}$ mm.

Hab. Southern Rhodesia (Mashunaland).

HOLISONYCHA, n. gen.

Mentum strongly incised laterally near the ligular part, and very sharp at apex, labial palpi inserted laterally, the other buccal organs as in *Schizonycha;* the antennal club of the male is as long as the pedicel the joints of which, with the exception of the two basal ones, are very small and closely set, the third being hardly longer than the fourth; the head and body are those of *Schizonycha*, but the long and slender claws are not much curved, and are simple at the tip.

Holisonycha mellila, n. spec.

Light brick-red, or pale testaceous, shining, each puncture on the upper side with a most minute hair; head small, clypeus truncate with the outer angles rounded, hardly emarginate in the centre, clypeal carina very slightly arcuate, suture indistinct, basal carina distinct, slightly sinuate in the middle; clypeal surface covered with irregular punctures having raised intervals, frontal surface plainly granulose; prothorax not much ampliated laterally towards the median part, and attenuated thence to the basal angle which is distinct, but not very sharp, outer margin somewhat crenulate in the posterior part, and ciliate, surface covered with round, scattered punctures separated by smooth intervals, the punctures are more closely set on the sides and along the anterior margin; scutellum impunctate; elytra elongated, cylindrical, the punctures somewhat apart; pygidium not distinctly punctate; abdominal segments not deeply punctate

laterally, and having a minute hair in each puncture; penultimate segment broader than the preceding, last one not quite half as wide as the penultimate, slightly convex; pectus with some long, but not very dense, appressed hairs; anterior tibiæ sharply tri-dentate outwardly; tarsi very long, claws long, slender, simple. The clasps of the genital armature are absolutely like those of *Schizonycha saga*. Female unknown.

Length 10–12 mm.; width 5–6 mm.

Hab. Cape Colony (Worcester).

Gen. SYNGENESCHIZA, Brensk., Stett. Ent. Zeit., lix., 1898, p. 381.

Very near *Schizonycha*, the head has only one frontal, arcuate, sharp keel, without any transverse occipital keel or prominence, the head is plainly broader than the clypeus, the eyes are very large; the antennæ are 9-jointed, and the third joint is very elongated and longer than the following two taken together, the club of the male is only slightly shorter than the pedicel; claws cleft at tip as in *Schizonycha*.

Syngeneschiza omrramba, n. spec.

Very pale testaceous, sub-livid, but with the sutural part of the elytra slightly, and the frontal part deeply infuscate; antennæ and legs of the same colour as the body; clypeus parabolic, but slightly truncate in the anterior part, genæ sub-transverse, eyes very large, frontal carina very sharp, little arcuate, both the clypeus and frontal part are covered with broad, irregular, briefly setigerous punctures; antennal club of male a little shorter than the whole pedicel, and slightly attenuated towards the tip, third joint of pedicel as long as the three following taken together; prothorax ampliate and rounded laterally towards the middle part, and only very slightly more attenuated in the anterior than in the posterior part, the angles of which are not rounded, the punctures are moderately closely set and not rugose; on the parallel elytra the punctures are somewhat broad, and separated from each other by an interval slightly narrower than their own diameter; pygidium fairly deeply but not closely set; penultimate abdominal segment nearly twice as broad as the one preceding; tarsi long, robust, upper tooth of claws longer but of nearly equal width than the lower, anterior tibiæ tri-dentate.

Closely allied to *S. tarsata*, Brsk., the type of the genus, but different. From my notes this species is identical with a co-type of

Adoretus sellatus, Klug, communicated to me by the Berlin Museum, and the claws of which I unfortunately did not examine at the time.

Length 10 mm.; width 5 mm.

Hab. Ovampoland (Omrramba).

SUNTEMNONYCHA, n. gen.

Mentum and buccal organs of *Schizonycha*, but the robust mandibles are not quite so curved at apex, and not bifid there; the clypeus is arcuate as in *Schizonycha*, but the margin is less strongly reflexed, it is separated from the frontal part by a deep transverse suture instead of a sharp keel, and the frontal part has no basal raised ridge; the antennæ are 10-jointed, the club in the male is as long as the pedicel, the two ultimate joints of which are acuminate and laminate respectively; the body is like that of *Schizonycha*, but the whole anterior margin of the prothorax has a short pubescent fringe; the legs are as in *Schizonycha*, the upper tooth of all the claws is long, curved, and sharp, the lower follows the same curve, but is abruptly truncate; pectus and median part of basal margin densely hairy.

Differs from *Schizonycha* by the presence of a frontal suture instead of a keel, the truncature of the lower tooth of the claws, and the shape of the two ultimate joints of the antennal pedicel.

SUNTEMNONYCHA COLLUSOR, n. spec.

Ferruginous, a little lighter on the elytra, antennal club of male, the only sex I know, light chestnut-brown, the joints of this club are parallel from the base to two-thirds of the length, and slightly ampliated thence, and therefore wider there than in the same sex of the *Schizonycha* species; clypeus parabolic, very little blunted in front, and with the anterior margin only moderately raised, it is divided from the frontal part by a deep, transverse, slightly arcuate suture, the frontal part has no basal elevation whatever, and the whole surface is covered with nearly contiguous sub-foveate punctures separated by narrow, raised walls; prothorax and elytra of the same shape as in *Schizonycha;* the former is densely pubescent along the frontal and outer margins, and also along the median part of the base above the scutellum, the punctures are not scrobiculate laterally, and are divided from each other on the disk by a space equal to their own diameter, but they are more closely set along the anterior margin; the scutellum is hairy, and the punctures on the elytra are deep with the smooth, slightly raised intervals, narrower in the anterior

than in the posterior part; pygidium closely punctate, the punctures squamigerous; abdominal segments with squamiform appressed hairs on the sides; pectus very densely pubescent; anterior tibiæ tri-dentate, tarsi long; lower tooth of all the claws sharply truncate, the upper one long and incurved.

Length 13½ mm.; width 7 mm.

Hab. Southern Rhodesia (Melsetter).

Gen. SPATHOSCHIZA, Arr.,
Ann. and Mag. Nat. Hist., ser. 7, vol. ix., 1902.

Labial palpi inserted laterally on the outer face of the mentum; last joint of maxillary palpi sub-cylindrical, truncate at the apex; clypeus emarginate in front, straight laterally, but slightly attenuate towards the apex, with the anterior angles sharp, concave in the anterior part, separated from the front by an arcuate keel, and having in addition a median frontal one; eyes very large; antennæ 10-jointed, club long in the male, third joint longer than the fourth, penultimate one of pedicel long; body slender, elongate; claws cleft underneath at the tip as in *Schizonycha*, but having also a sub-vertical median tooth and a quadrate basal one.

Spathoschiza debilis, Arr.,
Loc. cit., p. 96.

Pale testaceous, with the head somewhat reddish, antennal club flavescent, briefly but not densely pilose, the hairs are flavescent and somewhat longer on the under side; clypeus and anterior frontal part roughly punctate, the occipital part only slightly punctate, the eyes are very large and the genal canthus very slender; prothorax ampliated and rounded laterally past the middle part and not wider across the base than across the anterior part, finely crenulate and with the posterior angles sharp, closely and somewhat deeply punctate, all the punctures bearing a short, setulose hair; elytra cylindrical, very little wider at the base than the base of the prothorax; covered with deep, equi-distant, setigerous punctures separated by an interval about equal in width to their own diameter; pygidium deeply and somewhat closely punctate, fringed with long hairs; under side deeply and somewhat closely punctured all over; second abdominal segment broader than the third; hind basal tarsal joint much shorter than the second.

Length 9 mm.; width 3 mm.

Hab. Southern Rhodesia (Salisbury).

SEBAKUE, n. gen.

Mentum fused with the ligular part, deeply impressed on the outer face, bulging laterally and with the ligular part transverse, not emarginate, but with the angles rounded, last joint of labial palpi longer than the two preceding, slightly curved, sub-cylindrical, but somewhat acuminate towards the tip; maxillæ robust, hollowed on the inner face, provided with two strongly bifid teeth, diverging, but set on the same line, and an angular one beneath these two, the latter has a small bunch of hairs and represents evidently the inner lobe of the maxillæ; maxillary palpi moderately long, last joint very swollen outwardly, almost clavate, and somewhat deeply impressed, straight inwardly; mandibles robust, but compressed and chisel-like at the tip; labrum vertical, deeply emarginate; clypeus narrower than the head and separated from it by a somewhat indistinct, transverse impressed line, eyes large, divided in front by a slightly hairy canthus, head without any transverse frontal ridge; antennæ 9-jointed, the three last joints form the club, which is moderately elongate and longer in the male, ovate in the female, the first joint is longer than third–sixth, the sixth is sharply laminate in the male, less so in the female; prothorax ampliated laterally in the middle and nearly equally attenuate thence towards the base as towards the apex, outer margins slightly reflexed, basal angle sharp, anterior margin slightly pubescent near the angles in the male, but all along the length in the female; scutellum somewhat short, ogival, one-fourth broader than long; elytra hardly wider at the shoulders than the basal part of the prothorax, slightly sinuate below the humeral part and thence moderately ampliate towards the posterior, moderately convex, retuse behind and covering nearly the whole of the propygidium; propygidium sub-vertical but convex in both sexes; abdominal segments fused; anterior tibiæ strongly tri-dentate outwardly and with a long inner spur, tarsi moderately long, claws moderately robust, long, and having underneath a sharp median tooth; apical spurs of posterior tibiæ long and sharp in the male, compressed and rounded in the female; posterior and intermediate tibiæ with two incomplete oblique ridges.

SEBAKUE CORIACEA, n. spec.

Chestnut-brown, turning sometimes to ferruginous, glabrous on the upper side, but with the mouth parts and the pectus, the metasternum especially, densely hairy; head scrobiculate, separated by a sinuate, transverse, somewhat indistinct impressed line from

the clypeus, which is shorter, has strongly reflexed margins, and is deeply emarginate in the centre; prothorax slightly sinuate in the anterior part, ampliated laterally at about the median, somewhat moderately convex, covered with very closely set, deep, round punctures which are separated from each other by a space narrower than their own diameter, the outer margin is reflexed and strongly serrate from the anterior angle to the median part, but carinate thence to the sharp basal angle, and the anterior is briefly hairy in the centre; scutellum ogival, somewhat short, closely and deeply punctate; elytra ampliated laterally from about the median part, not very convex, somewhat retuse behind, plainly tri-costate on each side and with the suture also plainly raised, the whole surface is covered with nearly confluent, deep punctures, giving to the elytra a very coriaceous appearance; propygidium and pygidium very closely punctured, the latter somewhat convex, glabrous along the edges except for a few short setæ at the apex; abdomen closely punctulate, glabrous.

Length 18–20 mm.; width 9½–11 mm.

The genital armature of the male is strikingly different from that of any of the South African *Melolonthinæ*.

Hab. Southern Rhodesia (Sebakwe).

Gen. PSILONYCHUS, Burm.,
Handb. d. Entom., iv., 2, p. 288.

Mentum quadrate, entirely fused with the ligular part, which is, however, so reduced in length that the labial palpi are inserted on the angles of the anterior part, which is straight, not emarginate; second joint of the labial palpi thick, last joint short, ovate, but sub-acuminate at tip; maxillæ robust and with a quadrifid, strong tooth at the tip and two simple teeth underneath, maxillary palpi moderately long, last joint fusiform, not impressed laterally; mandibles very robust, arcuate; labrum vertical, not deeply emarginate, head small, narrower than the clypeus and without a clypeal suture, or with only a faint one, clypeus more or less deeply emarginate in the centre and with the margins slightly reflexed; eyes moderately large; antennæ 9- or 10-jointed, club usually tri-jointed, but occasionally 4-jointed, long in the male, ovate in the female, the two last joints of the pedicel more or less compressed; prothorax moderately convex, either sub-aculeate or ampliated laterally in the middle according to the sexes, and equally attenuated thence towards the sharp anterior angle as it is towards the base the angle of which is not much pronounced, in the centre is a more

or less distinct longitudinal shallow groove with smooth, flat walls and a smooth patch on each side in the posterior part, the outer margins are simple or serrate ; scutellum ogival ; elytra sub-cylindrical, but a little depressed in the posterior part, faintly costulate or not and covering almost the whole of the propygidium which has a deep, median, longitudinal groove ; pygidium vertical, slightly convex, more or less cordiform ; abdomen not much convex in the male, more so in the female ; pectus densely hairy ; legs and tarsi moderately long, anterior tibiæ uni- or bi-dentate outwardly and with a very small inner spur, posterior ones with an evanescent oblique keel, claws moderately long and with a vertical tooth underneath a little before the median part ; in the female the spurs of the hind tibiæ are only very slightly compressed.

The species included in this genus are extremely alike, and were it not for the shape of some of the antennal joints in the male their identification would prove almost impossible. On that account I do not propose, therefore, to split the genus into species with 9-jointed or 10-jointed antennæ or uni-dentate or bi-dentate tibiæ. The head and prothorax are deeply pitted, each puncture bearing a whitish scale and occasionally an erect hair, and the less deeply pitted elytra have bands of similar scales, sometimes interrupted, and alternating with denuded lines, while the pygidium and the abdomen, the latter especially, are densely scaly.

Key to the Species.

A^2. Antennæ 9-jointed.

B. Anterior tibiæ bi-dentate outwardly.

Elytra with three broadly interrupted bands of scales on each side .. .. *deridens.*

A^1. Antennæ 10-jointed.

B^2. Anterior tibiæ uni-dentate.

a^2. Club tri-jointed.

Clypeus almost hexagonal.

b^2. The two penultimate joints of pedicel not aculeate.

Elytra uniformly covered with scales, but having three small denuded patches on each side .. .. *eckloni.*

Elytra with alternate, entire rows of scales .. .. .. *barkeri.*

b^1. The two penultimate joints of pedicel aculeate.

Elytra with broadly interrupted bands of scales .. .. *gracilis.*

a^1. Club 4-jointed.

Elytra with broadly interrupted bands of scales .. .. *duponti.*

B[1]. Anterior tibiæ bi-dentate.

Clypeus rounded laterally and deeply emarginate.

a^2. The penultimate joint of pedicel plainly laminate.

Elytra with broadly interrupted bands of scales .. .. *perturbator.*

a^1. Penultimate joints of antennæ not aculeate.

Prothorax very densely hairy and also scaly; elytra with a denuded patch on each side of the posterior dorsal part *grondahli.*

Prothorax densely hairy, almost languinose, without any scales .. .. *pilosicollis.*

PSILONYCHUS DERIDENS, n. spec.,
Plate XLIII., fig. 28.

Dark bronze-green, moderately shining, female testaceous-red, antennæ piceous in the male, red, with the club infuscated in the female, head with a fairly distinct clypeal raised line in both sexes, head and clypeus clothed with long, greyish hairs in the male and without any scale, but with some squamiform hairs in the female; elytra with four rows of not very closely set, white, elongated scales, broadly interrupted two or three times; edge of propygidium, pygidium, and abdomen clothed with denser and slightly longer scales, pectus with a dense sub-flavescent pubescence; head and clypeus scabrose; prothorax covered with deep, round, contiguous punctures, somewhat rugose in the anterior part, less so in the posterior, grooved from the base to past the middle, and with the walls of the groove smooth and shining, on each side is a basal, smooth, longitudinally elongated patch; scutellum cordate, impunctate; elytra sub-cylindrical in the male, slightly ampliated laterally before the median part in the female, feebly bi-costulate on each side and having rows of irregularly set punctures deeper in the male than in the female; in the latter the scales on the upper side are very few, and those clothing the under side are very much finer than in the male; legs hairy and scaly.

Length 13–13½ mm.; width 6½–7½ mm.

Hab. Natal (Umvoti), Southern Rhodesia (Salisbury).

PSILONYCHUS ECKLONI, Burm.,
Plate XLIII., fig. 29.
Handb. d. Entomol., iv., 2, p. 289.

P. ferrugineus, Boh., Ins. Caffr., ii., p. 87.

Male: Reddish-bronze, shape and size of the preceding species, but with a different vestiture, being clothed on the upper side with

elongated, slightly yellowish-white scales, longer and more hair-like on the head and prothorax, and leaving slightly past the median part of the elytra three small, denuded, elongated spots set sub-transversely on each side; the clypeus is aculeate laterally and deeply emarginate in front, being thus almost hexagonal; the prothorax is plainly scrobiculate, and has no median longitudinal groove, but the supra-lateral elongate patch on each side of the posterior part is very plain; scutellum somewhat deeply punctate; elytra non-costulate; propygidium clothed with very fine, slightly squamiform, appressed hairs, but having a band of scales along the posterior margin; pygidium, abdomen, and legs clothed with whitish scales, pectus densely hairy; anterior tibiæ uni-dentate; legs, palpi, and antennæ rufescent-brown.

Length 13 mm.; width 7 mm.

Hab. Natal (Durban).

PSILONYCHUS BARKERI, n. spec.

Male: Narrower and more cylindrical than the two preceding species, clothed like *P. eckloni* with whitish or slightly flavescent scales which form on each elytron four uninterrupted bands separated by three narrow denuded lines; the hairs along the margins of the prothorax, the base especially, are plainly flavous; the clypeus is more sharply emarginate in the centre and narrower than in *P. eckloni;* the prothorax has a faint median longitudinal impression in the posterior part, and the lateral denuded patch is narrow but distinct; scutellum impunctate; the elytra are not costulate, but the denuded lines seem to be slightly raised behind; pygidial part and under side as in the preceding species; anterior tibiæ uni-dentate.

Length $11\frac{1}{2}$–12 mm.; width $5\frac{1}{2}$–$5\frac{3}{4}$ mm.

Hab. Natal (Umhlati).

PSILONYCHUS GRACILIS, Burm.,
Plate XLIII., fig. 27.
Handb. d. Entomol., iv., 2, p. 289.

P. decorus, Bohem., Insect. Caffr., ii., p. 88.

Male: Bronze-green, with the elytra and legs often rufescent, clothed on the upper side with white lanceolate scales, disposed on the elytra in four broad bands, divided by a narrow, smooth line, and having a broad, sub-quadrate, denuded patch under the scutellum, and a narrower but longer transverse band slightly past

the median part, extending across the median part of the disk; clypeus hexagonal and covered like the head with somewhat hair-like scales springing from the scrobiculate punctures; antennæ, palpi, and legs rufescent; prothorax of the usual shape, plainly grooved for two-thirds of the length, and with the walls of the groove broadly smooth, the basal, elongate denuded patch is very distinct on each side, the hairs on the outer margins and in the base are white, but occasionally flavescent; scutellum impunctate; elytra cylindrical, non-costulate; under side and legs as in the other species; anterior tibiæ uni-dentate outwardly; sixth and seventh joints of antennæ aculeate.

Length 12–13 mm.; width $5\frac{3}{4}$–6 mm.

Hab. Natal (Durban, Frere); Transvaal (Lydenburg, Pretoria, Potchefstroom, Johannesburg).

PSILONYCHUS DUPONTI, Burm.,
Handb. d. Entomol., iv., 2, p. 289.

Male: A little more robust than *P. gracilis*, bronze-green, but with the scales on the upper side finer and much more elongated, the pattern on the elytra is quite indistinct; clypeus plainly hexagonal; the broad denuded walls of the median groove of the prothorax are very plain, but the supra-lateral, basal, denuded patch is sometimes very indistinct, and the outer margins are strongly serrate; the scutellum is impunctate; the elytra are not costulate but the punctures are deep and seriate; the antennæ and palpi are rufescent or piceous, the eighth antennal joint is laminate and reaches to two-thirds of the length of the eighth, the sixth is also laminate but is only one-fifth of the length of the eighth, and the anterior tibiæ are uni-dentate.

Length $13\frac{1}{2}$–14 mm.; width $6\frac{1}{2}$–7 mm.

Hab. Natal (Upper Tongaat).

PSILONYCHUS PERTURBATOR, n. spec.

Male: Shape, colour, and size of *P. gracilis*, the white scales on the upper side are of the same size and similarly disposed, but it differs in the shape of the clypeus the outer sides of which are not aculeate in the median part, and are thus very much less hexagonal; in the shape of the antennal joints, the seventh of which is laminate and about one-sixth of the length of the eighth, while the sixth is not aculeate; and also in the tibiæ being bi-dentate outwardly; the median depression of the prothorax is not deep, the two smooth walls are more in the shape of two parallel median patches, and the supra-

lateral, supra-basal ones are often indistinct; scutellum impunctate, but with a slight median impression at the base.

Length 13–13½ mm.; width 6–6½ mm.

Hab. Cape Colony (Kowie); Natal (Durban).

PSILONYCHUS GRONDAHLI, Burm.,
Handb. d. Entomol., iv., 2, p. 290.

P. costicollis, Bohem., Insect. Caffrar., ii., p. 90.

Bronze-green, with the usual clothing of scales, which, however, are flavescent on the upper side, and very few in number on the prothorax which is very coarsely punctured and clothed with very long, erect, dense flavescent hairs; the head is also hairy, and the scales on the clypeus are also somewhat hair-like, the latter is moderately emarginate in front and not acuminate or angular laterally; the median impression is absent in the three examples at my disposal, and there are therefore no smooth walls, but the supra-basal, supra-lateral patches are distinct; the elytra are very cylindrical and more costulate than the other species, the three dorsal bands of slightly flavescent scales are sub-obliquely interrupted past the median part in a more or less indistinct manner; scutellum impunctate; anterior tibiæ bi-dentate outwardly; antennæ chestnut-red, the two ultimate joints of the pedicel not aculeate.

Length 10 mm.; width 5 mm.

Hab. Natal (Maritzburg).

PSILONYCHUS PILOSICOLLIS, Bohem.,
Insect. Caffr., ii., p. 89.

P. pruinosus, Gerst.

I have seen the type only of this species, which differs from my examples of *P. gröndahli* by its size, which is about one-third larger; the pubescence of the prothorax is longer, more lanuginose, without any traces of scales, and the punctuation is very much narrower; the costules of the elytra are much less in relief, and the scales are slightly finer; the anterior tibiæ are bi-dentate.

I did not possess *P. deridens* at the time I examined the type or co-type of *P. pilosicollis*, Boh., nor did I think of verifying then the number of the antennal joints. This species might thus prove to be identical with *P. deridens*, Boheman's description agreeing pretty fairly with it, but the co-type seen was certainly different. Boheman gives also to that species a vast area of distribution, *i.e.*, "Caffraria tota." Now such is really not the case, and it is thus probable that

this author, not having paid any attention to the shape and number of antennal joints, has confounded several species under one name—a mistake easily accounted for by the great likeness to each other of nearly all the species of this genus.

Gen. CONIOPHOLIS, Erichs.,

Nat. Ins., iii., 1847, p. 657.

Mentum and ligular part fused without any trace of suture, dotted over the almost impunctate outer face with a few fine hairs, deeply emarginate on the anterior part with the angles slightly rounded; last joint of labial palpi small, sub-fusiform, impressed on the outer face; maxillæ hollowed, armed with six strong, arcuate teeth, nearly equal in size and set in two tiers, last joint of maxillary palpi fusiform, but a little compressed, and moderately acuminate, not grooved outwardly; maxillæ robust, arcuate, and with a sharp cutting edge; labrum vertical, very deeply incised; clypeus narrower than the head and separated from it by a deep transverse suture, head only very faintly raised on the vertex, eyes large and distinctly carinate; antennæ 10-jointed, the three last joints forming the club, which is nearly as long as the pedicel with the exception of the first joint in the male, and a little shorter in the female, the second joint is almost as long as the third, but stouter, the sixth and seventh are compressed and angular; prothorax with the anterior margin either slightly pubescent near the anterior angles or quite glabrous, ampliated and plainly angular laterally at about the median part, and with the basal angle sharp; scutellum ogival, as long as broad, impunctate longitudinally in the centre; elytra slightly wider than the prothorax, and a little ampliated laterally at about the median part, sub-cylindrical, non-costate, and covering the greater part of the propygidium; pygidium vertical, slightly convex, abdomen convex, segments fused; pectus densely hairy; anterior tibiæ tri-dentate outwardly and with a long inner spur, posterior ones with a plain oblique keel; tarsi only moderately long, claws strongly curved, and having underneath a small triangular one between the base and the median part, and a wide, compressed, hamate one set at about the median part, and shorter than the upper; in the female the apical spurs of the hind tibiæ are only slightly more dilated and compressed than those of the male.

The two species included in this genus are covered on the upper side with whitish scales set at the bottom of each puncture; the pectus is very hairy.

Key to the Species.

Punctures on the upper side deep, white scales conspicuous .. .. .. *lepidiota.*

Punctures on the upper side finer, white scales not conspicuous .. .. *proxima.*

CONIOPHOLIS LEPIDIOTA, Burm.,

Plate XLIII., figs. 24, 25.

Handb. d. Entomol IV., ii. p. 284.

Totally dark chestnut, or chestnut-brown, with the elytra light chestnut, slightly rufescent, club of antennæ flavescent; head and clypeus covered with closely set, nearly contiguous punctures the walls of which are raised on the head, each puncture filled with a somewhat round, white scale, the angles of the clypeus are rounded, and it is deeply sinuate in the centre of the anterior margin, the sutural line is very plain; prothorax more attenuated laterally from the ampliated median part towards the apex than towards the base the angle of which is sharp, very little convex, the outer margins are plainly crenulate, the disk is covered with nearly confluent, round, deep punctures containing a round white scale, in the anterior part there is a central, longitudinal impression; scutellum cordate, smooth in the centre, punctulate and scaly laterally; elytra slightly wider at the shoulders than the basal part of the prothorax, very slightly sinuate laterally before the median part, and not much ampliated thence to the posterior, moderately convex, non-costate, covered with somewhat rounded punctures separated from each other by a smooth space nearly equal to their own diameter, and containing a slightly elongated white scale; the propygidium is almost completely covered by the elytra; the pygidium is somewhat cordate, vertical, plane, covered with nearly contiguous punctures, each with a white scale; abdominal segments and femora covered with sub-contiguous white scales broader than those of the upper side, pectus densely pubescent, the pubescence flavescent; anterior tibiæ strongly tridentate outwardly, tarsi moderately long.

This species varies so much in size that I thought the smaller form might prove to be a distinct species, until I saw a fairly long series caught in the same neighbourhood. The complicated genital armature is the same in both forms.

Length 12–19½ mm.; width 7–9½ mm.

Hab. Natal (Durban, Maritzburg).

CONIOPHOLIS PROXIMA, n. spec.,

Plate XLIII., fig. 26.

A very close ally of the preceding species, and differing mainly by the more finely punctured prothorax and elytra and the finer white scales; the shape of the genital armature is plainly different.

Length 15–15½ mm.; width 8 mm.

Hab. Transvaal (Lydenburg).

GEN. RHABDOPHOLIS, Burm.,

Handb. d. Entomol., iv., 2, p. 290.

Haplobrachium, Bohem.

Mentum straight, but broadly rounded laterally towards the apical part which is broadly and deeply emarginate, completely fused with the ligular part, but with the junction still indicated by a bi-sinuate suture, glabrous and sparsely punctate, and bi-impressed in the basal part; labial palpi short, the basal joint very small, the intermediate conical, the apical one broadly ovato-acuminate, longer than the other two taken together; maxillæ short and very robust, the upper lobe produced into a transverse, bluntly trifid erect tooth, and the inner into a triangular one nearly on the same level as the other, and briefly ciliate inwardly; maxillary palpi long, the last joint equal in length to the other three, a little thickened outwardly towards the tip where it is very slightly curved; mandibles very massive, arcuate, hollowed inwardly, the outer edge sinuate, the inner one straight; clypeus about one-fourth of the length of the frontal part and separated from it by an arcuate raised line, projecting beyond the narrow, very broadly emarginate vertical labrum, plainly reflexed in the anterior part, where it is sinuate or nearly straight in the male, broadly and deeply emarginate in the female, frontal part with one or three median longitudinal raised lines reaching from base to apex; eyes large, briefly divided in the anterior part by a short canthus; antennæ 10-jointed, the three last joints lamellate, nearly parallel and forming the club which is only very slightly shorter in the male than all the other joints taken together, but in the female the joints of the club are more ampliated and shorter than the pedicel, the third, fourth, and fifth joints are of nearly equal length, and the seventh shorter, compressed, and slightly angular inwardly; prothorax one-third longer than broad, little convex, sub-parallel or only slightly ampliated laterally, very

briefly setulose along the anterior margin, moderately sinuate along the base, and having in the median part one or three raised lines, as well as a conspicuous lateral keel running alongside the outer margin; scutellum cordate, as broad as long, sharp at the apex; elytra elongated, very little ampliated laterally, and convex in the anterior part only in the male, more ampliated and more convex in the female, having on each side nine large sharp costæ, and covering only half the propygidium; pygidium either very slanting or almost vertical; anterior part of metasternum and prosternum produced into a long spine-like, nearly horizontal process reaching as far as the median part of the prosternum; abdominal segments seemingly soldered, but with the sutures deep; anterior tibiæ bi-dentate outwardly and with a somewhat short inner spur; intermediate and posterior ones with a longitudinal groove on the outer face, and with a more or less plainly obliterated, oblique, ciliate keel on the posterior, the two apical spurs of which are very long and slightly flexed, and more slender and sharper at the tip in the male than in the female; tarsi moderately long, but longer in the male than in the female, the joints are bristly underneath, and the last one is longer than the others; the claws long, strongly curved, and having in the male a very minute tooth forming an angle at the base, and in the female a very strong, median, vertical tooth.

The livery of the three species included in this genus consists of very dense white or occasionally flavescent ovate or sub-lanceolate scales either covering the whole body with the exception of the pectus, which is somewhat densely hairy or disposed in bands on the prothorax and the interstices of the elytra.

The genus seems to be restricted to the South African area.

Key to the Species.

A². Pygidium strongly slanting backwards.

B². Clypeus emarginate on the centre.

C². Anterior tibiæ uni-dentate in the male, bi-dentate in the female.

Head and prothorax with one median longitudinal denuded raised line .. .. *costipennis.*

Head and prothorax with three denuded longitudinal raised lines .. .. *albostriata.*

A¹. Pygidium vertical.

B¹. Clypeus not emarginate in the centre.

C¹. Anterior tibiæ bi-dentate in the male.

Head with one median, raised, longitudinal line and a smooth elongated patch on each side of it; prothorax with three raised denuded longitudinal median lines .. .. *irrorata.*

RHABDOPHOLIS COSTIPENNIS, Bohem.,

Plate XLIII., fig. 23.

Insect. Caffr., ii., p. 84.

Chestnut-brown, covered with contiguous elongato-ovate scales, the pectus bears only a few scales but is thickly clothed with an appressed, slightly flavescent pubescence, only the median and supra-marginal keels on the prothorax and the sharp edge of the costules on the elytra are bare; head deeply and irregularly punctured, separated from the clypeus by a broadly arcuate keel, and having a conspicuous, raised longitudinal, median line, reaching from the clypeal suture to a very short distance from the base, in the male the clypeus is short, parallel, but slightly dilated obliquely towards the anterior part which is straight but plainly sinuate in the centre, and with the outer angles bluntly rounded, it is concave along the anterior margin which is very reflexed, especially in the centre, in the female the clypeus is shorter, slightly narrowed laterally towards the anterior part which is deeply and broadly emarginate; prothorax only slightly narrowed laterally in the anterior part, nearly sub-parallel thence to the base, but slightly rounded before the median part, posterior angles sharp, the discoidal part is not much convex and is covered with irregular punctures, in the centre there is a longitudinal, denuded, slightly raised line and a conspicuous, also denuded keel running close to and parallel with the outer margin; scutellum cordate, sharp at the tip; elytra elongate, somewhat sinuate laterally before the median part, and somewhat ampliated thence, more so, however, in the female than in the male, and a little less convex in the middle in this sex than in the female, they have each nine sharp costæ, including the juxta-sutural one, and the space between the outer costa and the margin is broader than the other intervals; propygidium clothed with scales in the uncovered part only; pygidium strongly slanting backwards and elongated in both sexes and broadly triangular; penultimate abdominal segment broader than the one preceding; intermediate and posterior tibiæ plainly grooved on the outer part, and having a very rudimentary trace of an oblique ciliate keel in the female only; anterior tibiæ bi-dentate outwardly, or the teeth sharper in the female than in the male.

In some examples the scales are flavescent instead of white.
Length 23–28½ mm.; width 12–14½ mm.
Hab. Cape Colony (Port St. John), Natal (Durban).

RHABDOPHOLIS ALBOSTRIATA, Burm.,
Plate XLIII., fig. 27.
Handb. d. Entomol., iv., 2, p. 292.

R. sulcipennis, Bohem., Ins. Caffr., ii., p. 85.

Shape of the preceding species, but a little smaller; the colour is the same but the scales are a little finer, and fill only the interstices and not the sides of the costæ, which are therefore more conspicuously bare than in *R. costipennis;* the head instead of one longitudinal raised, denuded line has three broader ones in the centre; the prothorax is more ampliated laterally and rounded at about the median part; and has three median, broad, slightly raised, denuded bands, and two lateral parallel ones above the outer margin; the tectiform costæ of the elytra are bare of scales, the outer ones are broader at the base than in *R. costipennis*, and the intervals being narrowed in proportion, the line of white scales is very narrow, offering a strong contrast with the broadly squamose-white supra-marginal interval. The rest as in *R. costipennis*.
Length 21–22½ mm.; width 10–12 mm.
Hab. Natal (Durban).

RHABDOPHOLIS IRRORATA, Péring.,
Trans. Entomol. Soc., London, 1896, p. 160.

Male: Piceous, with the elytra occasionally piceous-brown, club of antennæ dark chestnut-brown, longer than the whole pedicel; the punctures on the head and prothorax are not filled with scales, but the space between the lateral raised lines of the latter and the outer margin is densely scaly; the intervals on the elytra, the pygidial part, and the under side, except the pectus are scaly; head closely and irregularly punctured, and having a plain, smooth, raised longitudinal line and an elongated smooth space on each side of it, the clypeal suture is somewhat faint, the clypeus is straight in front with the margin much raised and not sinuate; the prothorax is similar to that of *R. albostriata*, closely punctate, and has likewise three median, smooth raised lines and two supra-lateral ones, the anterior and lateral margins are fringed with long, erect, slightly flavescent hairs; scutellum moderately scaly, smooth in the anterior part; elytra with the costæ very plain and somewhat rounded, they are shorter, in proportion to the size, than the other two species of

the genus and cover nearly the whole propygidium, the white scales fill the interval only; pygidium vertical, fringed with long hairs and having also some on the apical part of the inner face; the femora and the whole pectus are covered with a very long greyish pubescence.

Female unknown.

Length $14\frac{1}{2}$–$15\frac{1}{2}$ mm.; width $7\frac{1}{2}$–8 mm.

Hab. Transvaal (Lydenburg, Potchefstroom).

Group LEUCOPHOLIDES.

This group is characterised by the broad episterna on a line with the episterna which are also not divided from the former by a keel.

Some of the South African genera and species have very strong affinities with Madagascar ones.

Key to the Genera.

A². Anterior tibiæ without inner spur.

B². Anterior margin of prothorax with a bare membrane.

a. Mesosternum mucronate.

Inner claw of anterior tarsi simple, outer one strongly toothed underneath .. .. *Hypopholis.*

a. Mesosternum simple.

Each anterior claw with a short, vertical basal tooth .. *Pegylidius.*

Each claw cleft at apex underneath .. .. *Pegylis.*

A¹. Anterior tibiæ with an inner spur.

B¹. Anterior margin of prothorax ciliate.

*a*². Antennæ 10-jointed.

*b*². Mesosternum sub-mucronate, abdomen not bulging beyond the elytra.

Antennal club of male very long; hind callus of elytra greatly developed .. .. *Eulepida.*

*b*¹. Mesosternum simple, abdomen strongly bulging.

Antennal club of male short; propygidium deeply grooved longitudinally.. .. .. *Asthenopholis.*

*a*¹. Antennæ 9-jointed.

Antennal club of male ?; propygidium simple .. .. *Brachylepis.*

Gen. HYPOPHOLIS, Erichs.,

Nat. Ins., iii., 1847, p. 657.

Mentum rounded laterally at the base and deeply sinuate or incised at about the median part, the anterior margin is slightly

notched in the centre, the outer angles are moderately rounded, the outer face is somewhat plane and bears some greyish hairs; labial palpi somewhat short, last joint acuminate-ovate; maxillæ robust, upper lobe produced into three more or less bluntly bifid teeth disposed in a semicircle, the lower lobe is very distinct, tooth-like, and briefly ciliate inwardly; labial palpi moderately long, pilose, last joint almost fusiform, and having a shallow outer longitudinal impression; mandibles robust, arcuate, moderately concave along the outer margin; clypeus about half the length of the frontal part, separated from it by a very narrow, slightly arcuate impressed line, and with the anterior margin arcuate and very little raised, anterior part sub-vertical, labrum vertical, strongly bi-lobate; eyes moderately large, briefly divided in the anterior part by a short, hairy canthus; antennæ 10-jointed, basal joint moderately long, second moniliform, third and fourth sub-cylindrical, the fifth and sixth angular inwardly at the base, seventh small, compressed, the three last joints are parallel, laminate and form a club only slightly shorter than the whole pedicel; prothorax diagonally ampliated laterally from the anterior to the median part, and nearly straight thence, the anterior margin is glabrous except on the sides along the eyes, and the base is strongly sinuate; scutellum as broad as long, sharply arcuate at the apex; elytra plainly sinuate laterally in the anterior part, and broader thence to the apex, somewhat plane, and covering the greatest part of the propygidium; epipleural fold somewhat broad at the base, and very plain for one-third of the length; the latter is sloping; abdominal segments fused; mesosternum mucronate; tarsi moderately long, claws denticulate at the base, and having a sub-median vertical tooth underneath in the female, but not on the inner anterior claw of the male which is simple as well as the four posterior claws; anterior tibiæ bi-dentate, and without inner spur; intermediate and posterior ones somewhat slender, only slightly dilated at the tip, and without an oblique ciliate carina outwardly, spurs moderately slender and somewhat sharp at tip in the male.

HYPOPHOLIS SOMMERI, Burm.,
Plate XLIII., fig. 36.
Handb., iv., 2, p. 283.

H. sulcicollis, Boh., Ins. Caffr., ii., p. 92.
H. vittata, Fähr., Ins. Caffr., ii., p. 91.

Chestnut-brown, with the elytra light testaceous, but having usually a supra-lateral darker band along the outer margin (*sommeri*) and

occasionally one or two discoidal fuscous bands (*vittata*); head and clypeus deeply but only moderately closely punctured, each puncture bearing a very fine appressed greyish hair, clypeus arcuate but obtuse and slightly sinuate in front, and with the intervals between the punctures plainly coriaceous, attenuate laterally in the anterior part, very little ampliated in the centre, and only very slightly narrower across the base, the angles of which are sharp, than across the median part, there is a median longitudinal impressed line, the punctures are moderately shallow and not very closely set, and only the lateral ones bear a minute hair, the anterior margin is briefly and the median part of the basal one very densely pubescent; elytra glabrous, coriaceous, covered with deep, nearly confluent punctures and having on each side two costules somewhat distinct but obliterated in the anterior part; pygidium strongly sloping, clothed with greyish appressed hairs; abdominal segments punctate, each puncture bearing a short somewhat scale-like hair, pectus and legs with appressed, longer hairs; anterior tibiæ bi-dentate but occasionally with a slightly angular basal sinuation; basal part of claws somewhat angular, sub-median part with a sub-vertical tooth, and of equal length in the female, but with the inner one quite obliterated in the anterior legs on the male, and also on the four posterior ones.

Length 17–22 mm.; width 9½ mm.

Hab. Cape Colony (Uitenhage, Willowmore, Port Elizabeth, Graham's Town, Seymour, King William's Town, Griqualand West); Natal (Durban, Frere, Umvoti, Maritzburg, Echowe); Transvaal.

This species is very common in the eastern parts of the Colony, in Natal and in the Transvaal. In Natal it causes serious damage to the plantations of wattle-trees (*Acacia mollissima*, W.).

PEGYLIDIUS, n. gen.

Mentum twice as broad as long and very deeply incised laterally at its junction with the ligular part, the suture of which is quite obliterated, this ligular part is broadly rounded laterally, and very deeply emarginate in the middle in front, last joint of labial palpi fusiform, not quite as long as the two preceding ones put together; maxillæ robust, ending in a compressed bifid tooth at the apex, and having two sharply bifid teeth on each side under the apical one, lower lobe distinct and ending in a pencil of hairs; maxillary palps fairly long, the last joint fusiform and acuminate at tip, slightly longer than the second, not impressed laterally; mandibles robust, arcuate, sharply toothed at the tip, and with a strong cutting edge

inwardly; antennæ 10-jointed, the sixth joint is dilated and cup-shape, the seventh is compressed and fits closely against the first joint of the club, which is somewhat bristly, not as long as the whole pedicel; head and prothorax as in *Hypopholis*, but with the basal part of the latter densely hairy above the scutellum; scutellum cordate, broader than long; elytra slightly broader than the prothorax, and sub-angular at the shoulders, sinuate laterally before the middle and moderately ampliated thence towards the posterior part, but much less rounded there than in *Hypopholis*, depressed and plainly callose in the posterior declivity, covering the greatest part of the propygidium, non-costate but with the suture plainly raised; pygidium sub-vertical, somewhat broadly arcuate; abdominal segments soldered, and clothed, like the pygidial part, with short, appressed hairs which are denser and longer on the pectus; mesosternum simple; tarsi moderately long, anterior tibiæ bi-dentate outwardly, and without an inner spur, teeth of claws long, moderately arcuate, angular at the base, and having at a short distance from the base a sub-vertical, slightly hamate tooth under each claw.

Plainly allied to *Hypopholis*, but differing mainly by the structure of the claws and the simple mesosternum. The genital armature is also of a different type altogether.

Pegylidius mashunus, n. spec.,
Plate XLIII., fig. 37.

Reddish-brown, with a faint bronze sheen forming on the elytra faint, irregular macules of that hue, antennæ and palpi flavescent, under-side chestnut-brown; clypeus semicircular, divided from the head by a plain, transverse impressed line, both head and prothorax very finely punctulate and with a minute hair in each puncture; prothorax nearly twice as broad as long, hardly attenuated laterally from the median part to the sharp basal angle, but strongly narrowed from the middle to the sharp apical angle, anterior part straight in the middle, basal one strongly bisinuate and densely hairy above the scutellum, decidedly convex in the central part, and with the outer sides slightly depressed, not deeply punctured, the punctures divided by finely aciculate intervals wider than their own diameter; scutellum cordate, broader than long, aciculate and punctate; elytra deeply punctured and with the intervals equal in diameter to the punctures themselves, but slightly raised and plainly aciculate, each puncture bears a minute greyish hair, and there is no trace of costule, the humeral callosity is hardly visible, but the posterior one is conspicuous; propygidium and pygidium clothed with greyish, fine

appressed hairs slightly squamiform; abdominal segments also clothed with similar hairs, which are, however, more sparse on the thighs, and denser and longer on the pectus.

Length 20–21 mm.; width 11–11½ mm.

I have seen a long series of this species, the colouring and sculpturing of which is very constant.

Hab. Southern Rhodesia (Salisbury, Manica, Umtali, Sebakwe).

Gen. PEGYLIS, Erichs.,

Ins. Deutschl., iii., p. 657.

Mentum broad, strongly sinuate laterally, fused with the ligular part, which is very broadly and deeply notched in front into two sub-quadrate lobes covered with thick hairs on the outer face; apical joint of labial palpi ovato-acuminate, the three joints of nearly the same length; maxillæ very robust, bluntly toothed at the tip and with irregularly bifid teeth below the upper one, last joint of maxillary palpi somewhat slender, fusiform, truncate at the tip and a little longer than the second joint; mandibles arcuate, with a sharp cutting edge, the right one ending in a sharp arcuate tooth; the antennæ 9-jointed in the male, 10-jointed in the female; club tri-jointed and longer in the male than in the female in which sex all the joints are very distinct, but in the male the fifth and sixth joints are fused into one, and the seventh is very minute and fits again the base of the first joint of the club; labrum vertical, bi-lobate; clypeus semi-circular but deeply emarginate in front, separated from the head by an impressed line; eyes large; prothorax more than twice broader than long, ampliated laterally past the median part, not much convex, strongly bisinuate along the base; scutellum cordate; elytra somewhat plane, a little broader at the shoulders than the prothorax, ampliated laterally beyond the shoulders, not costulate, covering the whole propygidium and the base of the pygidium; abdominal segments fused, mesosternum simple, legs somewhat slender, anterior tibiæ tri-dentate outwardly, but with the basal tooth very weak; no inner spur, the posterior ones without any oblique ridges; tarsi moderately long, claws robust, hooked, each one cleft at the tip in the manner of *Schizonycha*, and also aculeate at the base.

Pegylis conspurcata, Gerst.,

Arch. f. Naturgesch., xxxiii., 1, p. 42; Die Glied. Faun. Sansibar., p. 112.

Testaceous-red, moderately shining, each puncture on the upper side bearing minute greyish hairs; propygidium, pygidium, abdomen

and legs clothed with small, appressed greyish hairs slightly denser on the pectus; head and clypeus covered with deep, round punctures with aciculate intervals; prothorax with similar punctures, more than twice as broad as long, ampliated laterally past the median part, and much more strongly attenuated in the anterior, not very convex and grooved longitudinally in the centre; scutellum cordate, strongly punctured; elytra with a distinct humeral and posterior callosities, somewhat plane, covering the propygidium, not plainly costulate, covered with deep, nearly foveate punctures separated by raised walls giving them a strongly coriaceous appearance. They are sprinkled with irregular, small, metallic, brown patches, which are, however, often obliterated; pygidium slanting in each sex; legs not robust, tarsi moderately long.

Length $14\frac{1}{2}$–$15\frac{1}{2}$ mm.; width 7–$8\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Mazoë); Sebakwe, Umtali. The first example was described from East Africa (Lake Jipe). My examples are quite similar to *P. hauseri*, Brsk., but they are also, I believe, identical with *P. conspurcata*, Gerst.

Gen. EULEPIDA, Kolb.,

Ann. Soc. Ent. d. Belg., vol. xxxviii., 1894, p. 554.

Mentum longer than broad, sub-parallel laterally, deeply impressed either longitudinally or transversely on the outer face, the upper outer angles are rounded, and the median apical part incised, the suture of the mentum with the ligular part is obliterated, last joint of labial palpi acuminate-ovate, or very swollen outwardly; maxillæ very robust, and with three strong, more or less distinctly bifid teeth; last joint of maxillary fusiform outwardly, very little swollen inwardly, broadly impressed outwardly in the male, very slightly or not at all in the female; mandibles very robust, concave, and with the upper edge laminate; clypeus shorter than the head and separated from it by a very faint sinuate transverse keel, strongly sinuate in the anterior margin, anterior part sub-vertical, very short; labium very long, vertical, bi-lobate; eyes very large, divided in the anterior upper part; antennæ 10-jointed; joints 6–8 narrow, compressed, third and fourth of nearly the same length, fifth slightly shorter than the fourth, basal joint slightly longer than the third and fourth taken together; the last three joints form the club, and are parallel and slightly sinuate, and almost as long as the pedicel in the male, more ovate and shorter in the female, in which sex the fifth, sixth and seventh joint are also less compressed; prothorax twice as broad as

long, moderately convex, bulging laterally in the median part and with both angles sharp; scutellum somewhat short, nearly semicircular; elytra elongated, covering the greater part of the long and broad propygidium, slightly ampliated laterally at about the median part, and having a long supra-marginal impression as a continuation of the humeral callus, the posterior calluses are very conspicuous; pygidium strongly slanting; abdominal segments fused but with the suture well-defined; metasternum with a median longitudinal line and produced as a blunt triangle between the trochanters of the intermediate femora; anterior tibiæ bi-dentate outwardly, and having a sharp, slender inner spur, intermediate and posterior ones with a very slight oblique keel, apical end of hind tibiæ very little dilated, spurs more slender and sharper at the tip in the female than in the male; tarsi slightly longer in the male in the anterior and intermediate legs, and shorter in the posterior, shorter in all the legs in the female; claws long, divaricating, angular underneath at the base, and with a sharp, vertical post-median tooth in both sexes.

The species included in the genus are wholly covered with contiguous, lanceolate greyish-white, or sub-flavescent scales; some of them have one or more lateral rows of very distinct white scales, larger than those forming the vestiture. This character has been made use of for differentiating some species, but it seems to me to be somewhat variable.

The genus is represented in Nyassaland; German East Africa; Cameroon and Lower Congo.

The South African species are captured from November till end of January.

Key to the Species.

A². Elytra without series of remote, white scales.

Pygidium moderately elongated in both sexes and wider than long at the base .. .. *mashona.*

A¹. Elytra with series of remote, white scales.

Pygidium strongly elongated, not wider at the base than long .. .. *anatina.*

Pygidium moderately elongated in both sexes:

Elytra plainly costate.. .. .. *lepidota.*

Elytra not costate .. .. *tschindeana.*

EULEPIDA MASHONA, Arrow,
Plate XLIII, fig. 31.
Ann. and Magaz. Natur. Hist., ser. 7, vol. ix., 1902, p. 98.

Dark chestnut-brown, with the legs and under side piceous; club of antennæ and palpi reddish-brown; covered with flavescent, elongated, contiguous scales, hiding completely the background, but the pectus is clothed with a short, dense, appressed pubescence, and the scales on the abdomen are whiter than on the upper side; head and clypeus closely punctured, the punctures are rounded, but less deep in the basal part of the head; prothorax obliquely narrowed laterally from the median part to the apex, slightly ampliated at the centre, nearly straight thence to the basal angle which is as sharp as the anterior one, outer margin plainly serrate, base strongly sinuate, surface closely punctate; scutellum semicircular, punctate; elytra somewhat depressed and covering the propygidium, deeply punctured, punctures separated from each other by a somewhat coriaceous interval equal in width to their own diameter, and having on each side two very faint costules, visible only in rubbed specimens, the greatly developed posterior calluses are covered with whiter and more hair-like scales; and in none of the examples that I have seen have I been able to detect traces of a supra-marginal row of remote white scales.

Length 25–29 mm.; width 12–15 mm.

Hab. Southern Rhodesia (Salisbury, between the Zambesi and Limpopo Rivers, Buluwayo).

EULEPIDA ANATINA, Brensk.,
Plate XLIII., fig. 30.
Stett. Ent. Zeit., 1896, p. 185.

Closely resembling the preceding species, the clothing of scales is similar, but the scales are finer, less lanuginose, and either pure white or flavescent, the antennal club is flavescent, the elytra are more convex in the posterior part, somewhat narrower, and they have on each side two somewhat ill-defined rows of white scales set far apart, and often entirely wanting in the female examples, the posterior half of the propygidium is not covered by the elytra, and the pygidium is very elongated in both sexes, but especially so in the male; the scales on the abdomen are very minute, and the three basal abdominal segments have in the centre a very distinct, isolated patch of still smaller and whiter scales, and the hairs on the pectus are not squamose or lanceolate. The shape of the genital armature

of the male is very different from that of the other two South African species known to me.

Length 26–33 mm. ; width 13–16 mm.

Hab. Southern Rhodesia (Sebakwe, Umtali).

Eulepida tschindeana, n. spec.,
Plate XLVI., fig. 12.

Quite similar in shape and size to *E. mashona ;* the clypeus and the pygidium of the male, the only sex I know, are identical, but the squamose hairs on the upper and under parts are much finer, more closely set, and have therefore a less squamose appearance ; each elytron has four series of very conspicuous but somewhat remote white lanceolate scales irregularly geminate and less numerous on the first dorsal row, a few of these scales can also be detected along the suture, and the apical callus is moderately pubescent. Apart from the difference in vestiture, this species is readily distinguished from the two other South African ones which I have examined by the shape of the genital armature of the male.

I have retained for this species the MS. name given to it by Herr Brenske, who kindly communicated his example to me.

Length 27½ mm. ; width 14 mm.

Hab. Mozambique (Beira).

Eulepida lepidota, Klug.,
Monatsb. Berl. Ac., 1855, p. 658 ; Peter's Reis., 1862, p. 256, pl. xv., fig. 5.

Kolb., Ann. Soc. Ent. Belg., vol. xxxviii., p. 555.

I considered *E. mashona* identical with this species, and the extremely good figure given in Peter's Reise looks uncommonly like it, but in his Key to the Species of the genus, Kolbe, who has seen Klug's type, says that in *E. lepidota* the elytra are subsulcate. The elytra of this species are provided with broad, weakly impressed longitudinal grooves which occur in no other species of the genus.

Hab. Mozambique (Tette-Quilimane).

Gen. ASTHENOPHOLIS, Brensk.,
Stett. Entomol. Zeit., 1898, p. 388.

Mentum slightly ampliated laterally, deeply impressed on the outer face which is hairy, ligular part narrower, rounded laterally at apex, deeply sinuate in the middle of the anterior part, last joint of

labial palpi swollen, briefly fusiform, very little acuminate at the tip, a little longer than the preceding joint; maxillæ very robust, deeply hollowed inwardly, armed on the upper margin with two strongly bifid teeth and having two more beneath these, these teeth, however, are extremely sharp, but they are also occasionally entirely blunted; last joint of the moderately long maxillary palpi fusiform, not sharply acuminate, plainly but briefly setulose and not impressed; mandibles very robust, arcuate, deeply hollowed on the outer face and sharply edged round the hollow; labrum vertical, deeply cleft; head small, wider, however, than the clypeus, and separated from it by a very plain transverse suture, frontal part with a transverse, almost keeled elevation on the vertex, clypeus transverse with the anterior margin reflexed and the angles moderately rounded, eyes divided in the anterior part by a hairy canthus; antennæ 10-jointed, the three last joints forming an elongato-ovate club shorter than the pedicel, and only slightly more elongated in the male than in the female, the fifth, sixth and seventh joints are angular on the inner side; prothorax short, convex, plainly hairy along the anterior margin, more attenuate laterally in the anterior than in the posterior part, and with the basal angles sharp; scutellum ogival, sharp at apex; elytra as wide at the humeral part as the base of the prothorax, but occasionally a little wider, and plainly ampliate laterally from about the median to the posterior parts, somewhat convex behind, moderately retuse there and not covering completely the propygidium which is deeply and conspicuously grooved longitudinally in the centre in the same manner as, although more conspicuously than in *Psilonychus;* pygidium vertical, slightly longer than broad, plane; abdomen very swollen in both sexes, strongly bulging laterally beyond the elytra in the male, not in the female; segments fused; hind tibiæ with one rudimentary oblique keel; anterior tibiæ tri-dentate, and with a long inner spur; tarsi short, claws long, curved and with a nearly median vertical tooth.

This genus is represented in British East Africa by one species which occurs also in Natal. The other South African species is so extremely variable that it has been several times described under different names. The two have each three short longitudinal denuded bands set past the median part of each elytron.

Key to the Species.

Teeth of maxillæ very sharp, scutellum closely punctate .. .. *sub-fasciatus.*

Teeth of maxillæ blunt, scutellum impunctate .. .. *crassus.*

ASTHENOPHOLIS SUB-FASCIATA, Blanch.,

Catal. Coll. Entom., 1850, p. 152.

A. dasypus, Burm., Handb., iv., 2, p. 318.
A. adspersus, Bohem., Ins. Caffr. ii., p. 94.
A. minor, Brsk., Stett. Ent. Zeit., p. 390.

Chestnut or ferruginous-brown, with the club of antennæ yellow, but also occasionally with the head and prothorax fuscous or even with the whole upper side fuscous-black; clypeus, prothorax, and scutellum covered with deep, closely set cicatricose punctures bearing each a yellowish squamose hair; elytra with each puncture bearing also a whitish, minute scale, pectus densely hairy, abdomen and pygidial part clothed with fine, appressed, sub-flavescent hairs; clypeus deeply and closely punctured, rounded laterally, emarginate in the centre, head with a distinct transverse prominence on the vertex, scrobiculate; prothorax with the squamose punctures set very close to each other, the outer margins are slightly serrate in the anterior part, the anterior and basal margins densely hairy; scutellum closely punctate hairy; elytra with three costules on each side and having past the median part three elongated, parallel impunctate bands, which in some examples ascend however towards the base as in the type (*sub-fasciatus*) or are very indistinct or not at all visible (*A. minor*); the appressed hairs on the pygidial part and abdomen are a little more flavescent than the squamose ones on the elytra. Herr Brenske has communicated to me his types of *A. transvaalensis* and *A. minor* which I am unable to separate from *A. sub-fasciatus* and *A. adspersus* Boh., the two types of which I have seen. In order to show how variable this species is, I may mention that I have received from Malvern, Natal, examples with black thorax and fuscous, or black elytra taken with examples having a black thorax and nearly scaleless black-red elytra. The first mentioned would be *A. minor* of Brenske, to the latter, however, he assigned the name *in litt.* of *A. bechuana*. *A. transvaalensis*, Brsk., is somewhat larger than the typical *A. sub-fasciata*, and the colour of the upper side is fuscous black, as in *A. minor*. The genital armature of *A. sub-fasciata* and *A. minor* are absolutely similar.

Length 16–21 mm.; width 10 mm.

Hab. Cape Colony (Graham's Town, Seymour, Transkei, East London, Port St. John); Natal (Durban, Maritzburg, Malvern); Transvaal (Pretoria, Rustenburg, Lydenburg); Bechuanaland, *teste* Brenske.

ASTHENOPHOLIS CRASSUS, Arrow,

Ann. and Magaz. Nat. Hist., 1902, vol. ix., 7th ser., p. 97.

Male: Larger than *A. sub-fasciata*, but with the same build and the same sculpture on the head and prothorax, but the scutellum is very closely and somewhat roughly punctate in the latter, and absolutely impunctate in the three examples of the present species which I have seen; the ground colour is black, and the punctures on the elytra show more than they would on a reddish, shining surface, but they are less closely set than in *A. sub-fasciata;* the impunctate longitudinal smooth bands are placed as in the latter species, but are wider, and the hairs in the punctures of the head and prothorax as well as on the abdomen are slightly thicker; the shape of the genitalia is nearly the same in both species, but the apical part of the valve is produced into a short, reflexed process rounded at the tip; the antennal club is yellow, and the pedicel rusty-red.

Length 24–25 mm.; width 13–14 mm.

Hab. Natal (Durban). The species was originally described from British East Africa.

GEN. BRACHYLEPIS, Kolbe,

Ann. Soc. Ent. d. Belg., 1894, p. 552.

Head small; antennæ 9-jointed, the club of the male is much shorter than the pedicel, and ovate, clypeus short, simple, with the margin slightly reflexed, frontal part without transverse elevation or keel; prothorax short; elytra with a distinct sutural costa; pygidium broader than long, mesosternal cone absent; anterior tibiæ tridentate; tarsi of all the legs slender, the joints long; claws with a sub-vertical median tooth underneath, and a short, basal one.

The species of the genus, which has been kindly communicated to me by Herr Brenske, is a massive insect, the body of which is plainly ampliated past the median part, with the abdomen very convex and strongly bulging laterally beyond the elytra in the male in the manner of *Asthenopholis*, from which it differs in the absence of a basal or occipital ridge, by the number of joints of the antennæ, and the absence of a groove on the propygidium; the shape of the claws is nearly the same, but the tarsi are longer than in *Asthenopholis*.

BRACHYLEPIS HAUSERI, Brensk. ? in litt.

Male: Fuscous-black, with the antennæ chestnut-red; head and prothorax covered with contiguous sub-flavescent scales hiding completely the background of the prothorax, but slightly less dense on

the head, the clypeus of which is sinuate in the centre, and somewhat short; the short prothorax is serrulate laterally and the basal angles project longitudinally beyond the line of the base; scutellum scaly; elytra slightly broader than the prothorax at the base, slightly sinuate past the humeral part and strongly ampliated thence to the posterior part, the suture is costate, and there are faint traces of two or three costules, both the humeral and postical calluses are very distinct and the surface is deeply punctate, the punctures being only moderately closely set and filled each with a greyish-white scale; propygidium extremely closely punctulate and very briefly pubescent pygidium broader than long, covered with contiguous sub-flavescent scales; abdomen strongly bulging out laterally and very convex, covered also with contiguous small white scales, pectus and episterna clothed with appressed thick squamose hairs, which in the former are mingled with a sub-fulvescent pubescence; legs scaly; anterior tibiæ tri-dentate.

I have not ascertained by dissection the sex of the only example known to me, but I am satisfied, in spite of the shape of the antennal club, that it is a ♂, owing to the shape of the spurs of the hind tarsi.

Length 27 mm.; width 14½ mm.

Neighbourhood of Zambesi River (Ikuta), communicated by Herr Brenske.

Group DIPLOTAXIDES.

Labrum transverse or arcuate, not incised; anterior coxæ strongly oblique and vertical at apex; clypeus either very short in both sexes or strongly prolonged and even bi-lobate in the male.

The shape of the labrum and of the anterior coxæ characterise this group which is represented in South Africa by five species, belonging to one or possibly two genera, the males of which have the two or three basal tarsal joints dilated and hairy underneath; this dilatation can also be traced in the female of some species.

Gen. APOGONIA, Kirby,

Trans. Lin. Soc., xii., 1818, p. 401.

Catagonia, Kolbe, Entomol. Nachr., vol. xxv., 1899, p. 57.

Ceratogonia, Kolbe, loc. cit., p. 45.

Mentum quadrate, plane, fused with the ligular part which is truncate at the tip, but the suture is visible; last joint of labial palpi cylindrical but somewhat acuminate at the apex; maxillæ robust, swollen at the base and ending in four strong arcuate teeth, without

traces of an inner lobe; last joint of maxillary palps fusiform, twice as long as the third, and not impressed laterally, maxillæ laminate and bifid at the tip; labrum narrow, transverse, not sub-cordate, not incised; clypeus separated from the head by a very faint suture, either diagonally narrowed laterally and truncate in front (*Apogonia*), or strongly aculeate and incised in the centre, or even bi-lobate in the male (*Catagonia*, *Ceratogonia*), head large, eyes large, divided in the anterior part by the canthus of the genæ which are, however, fused with the clypeus; antennæ 10-jointed, the first and second joints are as long as the rest of the pedicel, much thicker than the other joints which are small and moniliform, the three-jointed club is elongate in the male, ovate in the female; prothorax twice as broad as long, anterior angles very sharp, posterior ones angular, anterior margin not fringed with hairs; scutellum ogival; elytra broader than the prothorax and with the humeral angles sharp, moderately convex, costulate, not callose behind, covering the propygidium or the greatest part of it; pygidium small, cordate, declivous; abdomen convex, the segments fused, pectus not hairy; anterior tibiæ bi- or tri-dentate outwardly, and with a very distinct inner spur (*Catagonia Apogonia*), or without (*Ceratogonia*), posterior ones without a distinct oblique ridge, tarsi long, hairy underneath, especially in the male, in which sex the two basal joints of the anterior tarsi are somewhat dilated at the apex, especially the second (*Apogonia*), or the three basal joints, the second in particular, very broadly dilated in all the tarsi (*Catagonia*, *Ceratogonia*), claws somewhat robust, deeply cleft at the apex, the lower tooth as arcuate as the upper, nearly as long, and slightly broader.

The genus is represented in India, Ceylon, Borneo, Java, Sumatra, &c. It occurs also in East and West Africa, and five South African species are now known.

Key to the Species.

A^2. Anterior tibiæ tri-dentate.

B. Clypeus narrow in both sexes, truncate laterally, straight at apex; anterior tibiæ with an inner spur in both sexes .. .. Apogonia.

a^2. Punctures on the elytra round, intervals very little raised in the male, smoother in the female.

Testaceous or ferruginous with a metallic sheen .. .. *curtula*.

Dark bronze, very shiny.. .. .. *improba*.

a^1. Punctures on the elytra very deep and the intervals coriaceous, bronze with a ferruginous tinge .. .. *mashona*.

A¹. Anterior tibiæ bi-dentate.

B². Clypeus aculeate laterally, deeply incised in front, and considerably produced in the male .. .. Catagonia.

Testaceous-red with a bronze sheen .. .. *ovata.*

B¹. Clypeus aculeate laterally, deeply incised in front and produced in the male into two very long, horn-like lobes; anterior tibiæ without an inner spur in both sexes .. .. Ceratogonia.

Elytra pale testaceous, with a metallic sheen .. .. .. *marshalli.*

APOGONIA CURTULA, Péring.

Schizonycha curtula, Trans. S. Afric. Philos. Soc., vol. vi., 1892, p. 37.

Testaceous-red, with a metallic sheen, palpi and club of antennæ yellowish; clypeus deeply and somewhat rugosely punctured, truncate in front in the male, sinuate in the female, suture fairly distinct, punctures on the head not as rugose as on the clypeus, and separated from each other by a space equal to their diameter; prothorax more attenuated laterally in the anterior than in the posterior part, bulging and rounded in the middle, very slightly convex, with the margins not reflexed, and covered with round, not contiguous punctures more closely set on the sides than on the disk, and slightly deeper in the male than in the female; scutellum ogival, finely punctate laterally; elytra plainly callose close to the humeral angle, slightly sinuate there, and thence very slightly ampliated, moderately convex, and with two dorsal costules on each side, the suture is raised, and the intervals are filled with round punctures with smooth intervals nearly equal in width to the diameter of the punctures, the latter are seriate on the sides; apical part of propygidium and pygidium deeply punctured; abdomen and metasternum also deeply and closely punctured, each puncture bears a minute, sub-flavescent hair; legs slightly hairy; anterior tibiæ tridentate, tarsi longer in the male than in the female, and much more densely hairy underneath especially the anterior and intermediate ones, the second and third joints of the anterior tarsi, and also the apical part of the first which is longer than either of the other two, are very plainly dilated triangularly at the tip; the joints of the intermediate and posterior ones are normal; in the female the second and third joints of the anterior tarsi are also dilated, but only slightly.

Length $8\frac{1}{2}$–$9\frac{1}{2}$ mm.

Hab. Ovampoland (Omrramba).

APOGONIA IMPROBA, n. spec.

Female: Size and shape of the preceding species, but dark bronze and very shiny; the shape and sculpture are the same, but the punctures on the elytra are somewhat finer, and the intervals quite smooth and plane.

I have seen only one female example. It is quite possible that the male has more characteristic differences.

Length $9\frac{1}{2}$ mm.; width $5\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury).

APOGONIA MASHONA, n. spec.

Testaceous-red, turning to bronze-green, on the elytra; in shape it closely resembles *A. curtula* and *A. improba*, but it is at once distinguished by the constantly smaller size, and the much deeper and coarser punctures on the upper part, and also by the shape of the clypeus which is not so sharply diagonally narrowed laterally nor so truncate in front in the male, and not at all sinuate there in the female; the second and third joints of the anterior tarsi are only slightly dilated.

Length 7–$7\frac{1}{4}$ mm.; width 4–$4\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Salisbury, Sebakwe; Umtali, Mazöe).

APOGONIA OVATA, Fähr.,
Plate XLVI., fig. 17.
Insect. Caffrar., ii., p. 94.

Ceratogonia kolbei, Kraatz, Deutsch. Entoml. Zeitsch., 1899, p. 141.

Chestnut or reddish-brown, with a strong metallic tinge, club of antennæ flavescent; head and prothorax covered with fine, although deep punctures, separated by a smooth interval, nearly equal in width to their own diameter; scutellum finely but not densely punctate; elytra with the humeral angles sharp and slightly projecting beyond the rounded base of the prothorax, covered with deep, round, somewhat closely-set punctures, and having on each elytron two dorsal costules, edged on either side by a regular row of punctures, suture plainly raised; underside coarsely punctate; anterior tibiæ bi-dentate; in the male the clypeus is as long as the head, strongly aculeate laterally, and the apical part is deeply incised, the two angles of the incision being remarkably sharp, the three basal joints of all the tarsi are very much dilated, the second one especially, and provided underneath with a somewhat flat brush of flavescent hairs; in the female, the clypeus, which is not as long

as the head, is diagonally attenuate laterally and deeply emarginate at apex, with the angles sharp, but not projecting; the tarsi of the anterior tibiæ have the three penultimate joints slightly ampliated at the tip, but the joints of the other tarsi are normal.

Length 7–7½ mm.; width 3¾–4 mm.

Fåhræus's description was made from a female, the type of which I have seen.

Hab. Orange River Colony (Bothaville); Transvaal (Lydenburg, Rustenberg, Zoutpansberg); Southern Rhodesia (Umtali, Sebakwe); Natal (Estcourt); Bechuanaland (Kanya).

Apogonia marshalli, Arrow.,
Plate XLVI., figs. 9, 16.

Ceratogonia marshalli, Arr., Ann. and Magaz. Nat. Hist., ix., 1902, p. 94.

Pale testaceous, shining with a faint metallic tinge; head and prothorax covered with fine punctures nearly equi-distant and separated from each other by a smooth interval equal in width to their diameter, and having a faint supra-lateral impression on each side; scutellum more or less plainly punctured; elytra very deeply and closely punctured and having each two dorsal, fine costules edged on each side by a regular row of punctures; anterior tibiæ bi-dentate; pygidium and underside briefly pubescent; in the male the clypeus is cleft right to the base, and produced into two long sharply aculeate lobes, slightly divaricating, and also slightly bi-sinuate outwardly, longer than the head, and looking like two porrect horns; the joints of all the tarsi have a thick brush of hairs underneath, and the three basal ones, particularly the second, are very greatly dilated; in the female the clypeus is very obliquely narrowed laterally towards the median part, which is deeply cleft triangularly, but at its longest part it is only half the length of the head, and all the tarsi, except for a very slight ampliation of the three basal joints of the anterior pair are normal.

Length 6–7½ mm.; width 3½–4 mm.

Hab. Southern Rhodesia (Salisbury, Sebakwe, Umtali).

Sub-Family CETONINÆ.

Body moderately convex or plane above; labrum hidden under the clypeus; ligula fused with the mentum; maxillæ robust or slender, but not as massive or as robustly dentate as in the Melolonthini, except in the genus *Diplognatha*, and provided with an inner corneous lamina or inner lobe, and surmounted by an upper lobe varying in size and shape; antennæ 10-jointed, antennal club tri-jointed; elytra leaving the margin of the propygidium and the pygidium uncovered, and also the edge of the dorsal part of the three abdominal segments; mesothoracic epimera always greatly developed, vertical or strongly bulging; anterior coxæ vertical; abdominal segments seemingly ankylosed but with the sutures plainly distinct; claws of tarsi strong, simple, of equal length; hind tarsi with two long spurs at the inner angle.

The affinities of the Cetoninæ lie in two directions. Certain *Trichini* and *Myodermini* connect this Sub-Family with the Melolonthinæ; the *Cetonini* seem to be more closely allied to the Dynastinæ. From the latter they are divided by the shape of the mentum, and that of the mandibles, whereas these two parts are nearly akin to those of the *Melolonthini;* in many species the lower spur of the hind tibiæ of the female is often greatly dilated, and even spatuliform, also in the manner of many *Melolonthini*, and when of normal shape it is always blunter than that of the male. The mode of flight is unique among the Coleoptera, the wing-covers being merely raised vertically while the wings protrude underneath.

Although the majority of these insects are living in the imago state on the pollen of flowers, the juice, sap, or gum exuding from many plants, many are termitobious or myrmecobious; others are coprophagous, some of them live in the larval state in the nests of birds, feeding on the excrements of the young, and making there their cocoon of stercorarious matter.

The Sub-Family is divided into five sections, based on the shape of the scutellum and of the mesothoracic epimera.

A². Scutellum short, cordiform, not acuminate at tip.

B². Mesothoracic epimera invisible if looked at from above.. Trichiini.

B¹. Mesothoracic epimera vertical, laminiform, visible from above .. .. Myodermini.

A¹. Scutellum long, or very long, sharply acuminate at tip.

B². Mesothoracic epimera vertical, not visible from above .. Valgini.

B¹. Mesothoracic epimera large, or very large, plainly visible from above .. .. Cetonini.

The number of species recorded from the South African area is 223 divided into 101 genera. This is a good example of how great the tendency is, nowadays, to divide the genera on the slightest plausible reasons; for there are few Sub-Families among the Coleoptera which are as closely related to each other as the Cetoninæ are. The multiplication of species on the flimsiest characters excels that of the genera. I have satisfied myself, by an examination of the male genital organs, that a great many of them cannot be considered as valid.

The endemic genera number 33, distributed as follows :—

Trichiini, 4. *Agenius; Stegopterus; Brachagænius; Eriopeltastes.*

Myodermini, 2. *Elpidus, Xiphoscelidus.*

Cetononi (Cetonides) 15. *Xiphoscelis; Rhinocæta; Lipoclita; Atrichelaphinis; Goraqua; Trichostetha; Odontorrhina; Ischnostoma; Gariep; Heteroclita; Raceloma; Mazoe; Gnathocerida; Amazula; Atrichia.*

(Cremastochilides) 12. *Macromima; Phymatopteryx; Anatochilus; Plagiochilus; Proxenus; Astoxenus; Genuchus; Trichoplus; Myrmecochila; Anatochilus; Scaptobius; Placodidus.*

Six of these genera will probably be met with outside the South African area.

Tribe TRICHIINI

In the insects included in this Tribe, the elytra are either convex or plane, the ligular part of the mentum is deeply and broadly scooped out, the labial palpi are inserted in the outer face of the mentum, the upper lobe of maxillæ is elongated, simple, and bears a long pencil of hairs, and the inner lobe is not distinct, the clypeus is a little longer than the head, the antennal club is as long or much longer than the pedicel in the ♂; the basal angles of the prothorax are not rounded but are always angular, and even sharply so, and the median part is not arcuate; the scutellum is cordiform and as broad as long; the apical end of the hind tibiæ does not end in three teeth or spines, and the spurs are long, the upper one is occasionally strongly compressed in the ♀ (*Stegopterus*); the tarsi, especially the hind ones, are very long and slender, with the claws long; the basal joint is longer than the second, and there is no mesosternal process, except in *Stripsipher*. The body is partly pubescent, or glabrous, the pubescence is not squamose.

The South African species are found on flowers. They fly with great rapidity. The livery of the female differs from that of the male in some species belonging to the genus *Agenius*. It is not known if the larvæ make for themselves a cocoon.

The characters distinguishing this Tribe are constant, provided that the genus *Polyplastus*, which, however, has not been met with as yet in the South African area, be removed from it. It is a very abnormal form, having dentate maxillæ, a quadrate mentum, a scutellum as sharp at apex as the *Cetonini*, the mesothoracic episterna are conspicuous, and the hind coxæ project beyond the elytra. The facies is, however, that of a *Trichiid*, the outer angles of the prothorax are sharp, and the outer teeth of the fore tibiæ are similar to those of *Stripsipher*.

Key to the Genera.

A². Elytra convex.

B³. Anterior tibiæ of ♂ bi-dentate, tri-dentate in the ♀ .

Clypeus emarginate; spurs of the hind tibiæ sharp in the ♂, compressed and obtuse in the ♀ .. .. *Stegopterus.*

A¹. Elytra plane.

B². Anterior tibiæ tri-dentate in both sexes.

Clypeus not sinuate nor emarginate at apex; elytra narrowing towards the posterior part .. .. *Agenius.*

Clypeus sinuate or deeply emarginate; elytra as broad at apex as at the base .. .. { *Stripsipher.* *Brachagenius.*

B¹. Anterior tibiæ bi-dentate in the ♂ .. .. *Eriopeltastes.*

Gen. STEGOPTERUS, Schaum.,
Germ. Zeitschr., ii., 1840, p. 404.

Mentum as broad as long, plane, almost parallel, very hairy, ligular part very deeply and broadly scooped out in front, almost bi-lobate, labial palpi inserted at some distance from the apex, last joint swollen, maxillæ somewhat robust, fringed inwardly with dense hairs, upper lobe, or mando small, set at right angles to the maxilla and bearing a very long pencil of hairs projecting plainly beyond the clypeus if looked at from above, maxillary palpi of the usual type, the last joint very little longer than the preceding one; clypeus a little longer than the head, slightly contracted near the base, emarginate or not in front; antennal club longer in the male than in the female, and as long or much longer than the pedicel; prothorax slightly broader than long, more attenuate laterally in the

anterior than in the posterior part, and with the basal angles plainly distinct; scutellum cordiform, as broad as long; elytra elongate, not plane; pygidium vertical; under side very densely hairy, as are also the head and prothorax, but the elytra are glabrous; legs long, tarsi longer than the tibiæ, strongly spinose underneath; anterior tibæ bi-dentate outwardly in the male, but tri-dentate in the female, in which sex the lower spur of the hind tarsi are very plainly compressed and blunted at tip; the intermediate tibiæ of the male are somewhat curved inwardly in some species, not in others.

Three of the species of this genus seem restricted to the western South African area, but another one occurs also in Natal, where it seems to be rare.

Key to the Species.

A². Clypeus emarginate in front.

Elytra with the suture, the outer margin and a diagonal band on each side green .. .. *vittatus.*

Elytra with the suture and the outer margin green .. .. .. *suturalis.*

A¹. Clypeus not emarginate in front.

Elytra with the suture and the outer margin infuscate; pygidium concolorous .. .. *septus.*

Elytra with the outer margin only black; pygidium with two wide whitish patches .. .. *natalensis.*

STEGOPTERUS VITTATUS, Fabric.,
Syst. Ent. App., p. 819;
Gor. and Perch. Monogr. Cét., 1883, p. 83, pl. 9, fig. 5.

surinamensis, Herbst. Käf., iii., p. 71, pl. 23, fig. 7.
tomentosus, de Geer. Mem., vii., p. 644, pl. 48, fig. 8.
tricolor, Lin. Syst. Nat. Ed. Gmel., i., 4, p. 1574.
zebra, Oliv. Ent., i., 5, p. 54, pl. 7, fig. 75; Guér. Icon. Règn. Anim. Ins., pl. 26, fig. 3.

Metallic green; elytra flavescent and having on each side a fuscous longitudinal, somewhat narrow infuscate band reaching from the shoulder to the apex, the outer margin is also narrowly infuscate laterally, and the suture has a broad green band in the male, and a fuscous one in the female.

Male: Head closely punctate, and covered in the frontal part by a dense pile of flavescent hairs; clypeus a little shorter than the head, not much ampliated laterally, as broad as long, broadly emarginate at apex, with the angles broadly rounded; antennæ deeply infuscate, the club longer than the whole pedicel; prothorax

longer than broad, plainly narrowing laterally from the median part to the apex, but nearly straight from the middle to the base the angle of which is very sharp, closely rugose punctate and covered with a long, sub-erect, very dense flavescent pubescence; scutellum deeply and somewhat roughly punctate; elytra one-fifth longer than broad, hardly narrower at apex than at base, somewhat convex in the anterior dorsal part, but not so in the posterior, and having a distinctly raised, rounded, supra-marginal ridge on which the fuscous band runs, and reaching from the humeral callus to the apex; on the surface are sparsely scattered, very shallow, and extremely fine punctures; pygidium finely shagreened and clothed with long hairs; abdomen punctulate; pectus shagreened, the whole under side and legs very hairy, the hairs sub-flavescent; intermediate tibiæ slightly arcuate, anterior tibiæ with two distinct apical outer teeth and a sinuation above the second tooth.

Female: Clypeus more arcuate laterally from the base to the apex the anterior part of which is thus narrower than in the male, but is equally deeply emarginate, the sculpture is nearly the same, but the head is not thickly pubescent in my examples, nor is the prothorax which bears only a few scattered hairs, and is much more broadly and more deeply punctate instead of being shagreened; the elytra are more convex, plainly ampliate behind, and coarsely punctate, especially in the median part, the pubescence of the pygidium and also of the under side is shorter; the anterior tibiæ are plainly tri-dentate outwardly, and the lower spur of the hind tarsi, more compressed and blunter at tip than the upper.

Length 13–17½ mm.; width 8–9 mm.

Hab. Cape Colony (Cape Town, Stellenbosch).

STEGOPTERUS SUTURALIS, Gory and Perch.,
Monogr. Cét., 1833, p. 84, pl. 9, fig. 6.

Metallic green, with the elytra greenish flavescent or flavescent and very narrowly marginated with black, suture with a bright green band; legs bluish-black. This species so closely resembles *S. vittatus* in general appearance, as well as in colouration, that it might be easily taken for the same, but it is smaller; the elytra have no traces of the supra-lateral infuscate band; the antennæ including the club are rufescent instead of being black or deeply infuscate; the head and prothorax of the female are as densely hairy as those of the male, but in the latter the punctures are slightly more asperous, the body is narrower and less ampliated behind in the female; the elytra of the male are more distinctly

punctured, but those of the female are alike in both species; the genital armature differs, the clasps enclosing a broader open space and being less diagonally truncate outwardly at apex in *S. suturalis;* the intermediate tibiæ of the male are also more strongly curved inwardly than in *S. vittatus.*

In examples from Worcester and Beaufort West, the punctures on the prothorax are not quite as asperous as in the examples from the neighbourhood of Cape Town; this character is variable.

Length 14½–15 mm.; width 7½–8 mm.

Hab. Cape Colony (neighbourhood of Cape Town; Worcester, Hex River Valley.

Stegopterus septus, Sch.,
Germar's Zeitschr., ii., 1840, p. 404.

Male: Bronze black; elytra pale testaceous, with the suture and the outer margins infuscate; head, prothorax, under side and legs clothed with a very long and very dense greyish or sub-flavescent pubescence; clypeus as long as the head, not narrowed at the base but rounded laterally in the anterior part, and not emarginate in front; antennal club very long, half as long again as the whole pedicel; the sculpture of the head and prothorax and the shape of elytra and pygidium similar to those of the two preceding species from which it is easily distinguished by the shape of the clypeus and the much greater length of the antennal club; the intermediate tibiæ are not curved inwardly.

Female unknown.

I have seen only two male examples of this species.

Length 10–10½ mm.; width 4⅘–5 mm.

Hab. Cape Colony (? Knysna; Clanwilliam).

Stegopterus natalensis, n. sp.
Plate XLVII., fig. 6.

Male: Bronze-black, with the antennæ and the elytra testaceous yellow, the latter have the recurved outer margin black; clypeus somewhat concave, rounded in front, owing to the margin being raised all round, very slightly emarginate in the centre, densely hairy like the head; antennal club extremely long; prothorax of the usual shape, clothed with a very dense and long flavescent pubescence, and covered with somewhat broad, sub-contiguous punctures; along the outer margin there is occasionally a whitish band; scutellum closely punctate; elytra somewhat short, being only twice the length of the prothorax, more deeply striate than in

the other species of the genus; pygidium with a greyish-white coating leaving a median longitudinal black band beginning at a short distance from the base, but reaching the apex, and having in addition a moderately dense, long yellowish-white pubescence similar to the one clothing the under side; the tarsi of the intermediate tibiæ, which are not curved, are shorter than the tibiæ, but those of the hind legs are much longer.

The facies is slightly different from that of the other three species of *Stegopterus*, in which the whitish pygidial macules are also absent, owing to the somewhat more plane and shorter elytra. The antennal club of the ♂ is still more developed than that of *S. septus*, and in many respects this species agrees with Burmeister's description of *Eriopeltastes leucoprymnus*, but the buccal organs are those of *Stegopterus*, the maxilla and mando not being unusually slender, and the hind tarsi are also of a normal length.

Length 10 mm.; width 6 mm.

Hab. Natal (Estcourt).

Gen. AGENIUS, Serville,
Encycl. Méth., x., 1825, p. 702.

Mentum plane, sub-ovate laterally for a little more than two-thirds of the length, notched laterally at the ligular part which is twice as long as broad, deeply incised in the centre, with the two apical parts rounded, labial palpi inserted near the apex of the outer face, last joint ovoid, truncate at the tip; lower maxillary lobe moderately robust, densely ciliate inwardly, upper lobe or mando corneous, thickly hairy at tip, the penicillate hairs plainly projecting beyond the clypeus, last joint of maxillary palps sub-fusiform outwardly, blunt at apex; clypeus longer than the head or not, not incised in front; antennal club either longer than the six preceding joints of the pedicel (♂) or of equal length (♀); prothorax plane, sub-hexagonal; scutellum sub-ogival; elytra plane, elongate, either tapering slightly laterally from the base to the apex or as broad there as at the base (*rufipennis*); pygidium sub-vertical in the male, sub-horizontal in the female; legs long, especially the tarsi, very slender; anterior tibiæ tri-dentate outwardly in both sexes; spurs of hind tibiæ sharp in both sexes.

Five species included in this genus are now known; four of them seem restricted to the south-western parts of the Cape Colony, and one is recorded from the Transvaal; in two species the colouration of the female differs much from that of the male.

Key to the Species.

A². Clypeus longer than the head and acuminate.

B². Both sexes similarly coloured.

C². Head and prothorax almost glabrous in both sexes.

Elytra rufescent and having a discoidal black patch, a sutural cuneiform black band running from the middle to the apex, and a narrow black band along the outer margin .. .. *limbatus.*

B¹. Both sexes differently coloured.

C². Head and prothorax almost glabrous in both sexes.

Elytra flavescent in the ♂, and with a sutural black band reaching from the middle to the apex, outer margin with a narrow black band; elytra quite black in the ♀ .. .. *clavus.*

C¹. Head and prothorax pubescent.

Elytra almost straw-coloured in the ♂, suture with a non-interrupted black band, outer margin with a narrow black band; elytra rufescent in the ♀ but with a very broad black sutural and outer marginal band .. *suturalis.*

A¹. Clypeus slightly shorter than the head, and not acuminate.

Elytra not narrowed at apex, red, with a narrow sutural black band slightly dilated in the centre .. .. *rufipennis.*

Elytra slightly narrowing towards the apex, pale yellow with a median quadrate black patch continued as a broad band along the suture, outer margin black .. .. *plagosus.*

AGENIUS LIMBATUS, Olivier,
Entomol., i., 5, p. 59, pl. 9, fig. 100;
Gory and Perch., Mon. Cét., p. 95, pl. 11, fig. 4.

Black, with the elytra testaceous yellow, upper part not shiny; clypeus longer than the head in both sexes, more deeply strangulate laterally at the base, broader and also slightly more emarginate at apex in the male than in the female, covered, like the head, with deep, round, sub-confluent punctures, and with the vertex of the head sparsely villose; antennæ black, with the club one-third longer in the male than in the female; prothorax diagonally ampliated from the apex to about the median part, almost equally narrowed thence to the posterior angle which is plain, and with the base slightly bi-sinuate, plane, closely punctured, the punctures deeper

and somewhat coarser in the female than in the male, in which sex the anterior margin bears a few scattered, long flavescent hairs which are entirely wanting in the female in which also the prothorax is wholly black, whereas in the male there is a broad supra-lateral, rufo-flavescent band; scutellum cordiform but somewhat acute at tip; elytra plane, elongate, narrower at apex than at base, having on each side a longitudinal impression between the humeral part and the suture, this latter part being plainly convex in the posterior part; the testaceous yellow elytra have an elongated discoidal, black median patch on each side, a sutural black band beginning at about the median part, and very narrow there, but widening as it reaches the apex, and an outer marginal black band, tapering, however, in the direction of the base; pygidium and abdomen black, glabrous; anterior tibiæ sharply tri-dentate; tarsi longer than the tibiæ, the intermediate ones strongly curved inwardly at apex in the male, spurs of hind tibiæ not compressed in the female, and although slightly thicker than in the male, yet nearly equally sharp.

Length 12–14½ mm.; width 6–7 mm.

Hab. Cape Colony (Cape Town, Stellenbosch, Malmesbury, Paarl, Worcester).

AGENIUS CLAVUS, Schaum.,
Ann. Soc. Ent. Fr., 1844, p. 422.

♂ *elegans*, Pér., Trans. S. Afr. Phil. Soc., vi., 1892, p. 115.
♀ *grandis*, Pér., loc. cit., iii., 1885, p. 100.

Male: Black, with the elytra pale flavescent and having a narrow outer marginal black band, the suture has a moderately broad black band ascending from the apex to the median part, where it sometimes expands in a short triangular patch; the clypeus is acuminate as in the preceding species, but is straight in front, the head and prothorax are similarly shaped and sculptured, the latter has a median groove and is either moderately pubescent or almost glabrous; the elytra are not quite as narrowly elongate as in *A. limbatus*, but the sculpture is the same; the under side is moderately pubescent.

Female: More elongated than the male, but equally plane, and with the clypeus more attenuate laterally towards the tip, the punctures on the head and prothorax are coarser and deeper; the whole body is black, and the elytra are deeply and somewhat coarsely punctate; the under side is glabrous.

Length 12½–18 mm.; width 6½–9 mm.

Hab. Cape Colony (Worcester).

AGENIUS SUTURALIS, Waterh.,
Ann. and Mag. Nat. Hist. (5), xv., 1885, p. 379.
namaquensis, Péring., Trans. S. Afr. Phil. Soc., iii., 1885, p. 100.

Male: Black, with the elytra light straw-colour, and having a somewhat broad outer marginal black band and a sutural one reaching from the base to the apex; clypeus, head, and prothorax shaped and sculptured as in *A. clavus*, but the latter is covered with a moderately dense, long, greyish pubescence; the elytra, which are shaped like those of the preceding species, are more distinctly punctate, and the intermediate tibiæ are also strongly curved inwardly; the pygidium and under side are clothed with a very dense greyish pubescence.

Female: Similar in shape and sculpture to the same sex of *A. clavus*, but the elytra instead of being entirely black are brick-red, with a very broad sutural band reaching from base to apex, and have a similarly broad outer marginal one; these two bands coalesce occasionally, leaving only the basal part red; the under side is glabrous.

Length $13\frac{1}{2}$–$16\frac{1}{2}$ mm.; width $6\frac{1}{2}$–8 mm.

Hab. Cape Colony (Namaqualand).

AGENIUS RUFIPENNIS, Gory and Perch.,
Mon. Cét., p. 96, pl. 11, fig. 5.

Male: Black, with the elytra brick-red, very little shining, glabrous; antennæ rufo-flavescent with the exception of the basal joint which is black; clypeus with the margins thickly reflexed, slightly arcuate in front, not much constricted laterally, and, like the head, which is a little longer, thickly punctate; prothorax ampliated laterally in the centre, and equally narrowed towards the apex as towards the base which is plainly bi-sinuate with the angles not sharp but not rounded, the disk is covered with round, equi-distant punctures; scutellum sparsely punctate; elytra plane, slightly broader across the middle than across the base or the apex, not striate but having rows of serrate punctures especially distinct in the median dorsal part, they are brick-red, and along the suture runs a narrow black band reaching from the base to the apex and somewhat dilated in the centre, the outer marginal fold is black; pygidium concolorous; intermediate tibiæ not arcuate.

I have seen two males only of this seemingly rare species; they have no white markings, nor traces of them, and they are not shiny,

as mentioned by Burmeister in his description of the species (Handb. d. Entomol., 3, p. 735).

Length 9–11 mm.; width 5–5¼ mm.

Hab. Cape Colony (neighbourhood of Cape Town).

AGENIUS PLAGOSUS, Pér.,

Plate XLV., fig. 10.

Trans. S. Afr. Phil. Soc., iii., 1885, p. 101.

Male: Glabrous, black, with the antennæ flavescent, and the elytra pale yellow but marginate with black and having a broad sutural band reaching from the apex to the median part, where it expands in a quadrate patch; clypeus slightly arcuate in front in the same manner as the preceding species, but the reflexed margins are not so thick; both the head and prothorax are covered with deep, nearly contiguous punctures; the prothorax is sub-angular laterally a little before the median part and evenly attenuate thence to the apex or the base which is bi-sinuate with the angles acute, the punctures on the disk are not as deep nor as closely set as those of the head; scutellum deeply but sparsely punctate; elytra hardly ampliate laterally in the median part, and narrower at apex than at the base, non-striate and not distinctly punctate; legs and tarsi very long; intermediate tibiæ not arcuate.

Length 11–11½ mm.; width 6 mm.

Hab. Transvaal (Lydenburg), Natal (Upper Tongaat).

GEN. STRIPSIPHER, Gory and Perch.,

Monogr. Cét., 1833, p. 35.

Stringophorus, Burm., Germar's Zeits., ii., p. 398.

Buccal parts of *Agenius;* clypeus not longer than the head; antennal club of equal length in both sexes; body glabrous; elytra slightly ampliated laterally in the middle, as broad at apex as at base, barely covering the propygidium; prothorax with a distinct round supra-marginal impression on each side of the disk; legs long, slender, glabrous; spurs of hind tarsi neither compressed nor blunt in the female; anterior tibiæ tri-dentate outwardly in both sexes, the two apical teeth nearer to one another than the third; a sternal process projecting beyond the coxæ and sub-obtuse at apex.

The two species included in this genus have retained the two lateral prothoracic impression which obtains in the *Melolonthinæ*,

Coprinæ, &c., and which, to the best of my knowledge, have entirely disappeared in the *Cetoninæ*.

Two species extremely variable in colouration are included in this genus.

Key to the Species.

Clypeus sinuate in front .. .. *longipes.*

Clypeus deeply incised .. .. *zebra.*

STRIPSIPHER LONGIPES, Sweder.,
Act. Holm., 1787, p. 192.

swederi, Schonh., Syn. Ins., i., 3, 106.
flavipennis, Gor. and Per., Monog. Cét., p. 96, pl. 11, fig. 6.
horsfieldi, McLeay, Illust. Zool. S. Afric., iii., p. 14, pl. i.

Glabrous, black, shiny; prothorax with a white outer marginal band, which, however, is often obliterated; scutellum with two white spots; elytra either flavous and maculated with black or quite black, they have on each side two white spots above the outer margin, and two on each side of the suture; pygidium with two yellowish or whitish spots on each side, these spots coalesce often and thus form an arcuate patch; the anterior legs and the clypeus are occasionally rufo-flavescent; clypeus shorter than the head, sinuate in front, not much strangulate laterally at the base, head somewhat coarsely punctate; antennal club very little longer in the male than in the female; prothorax more attenuate laterally in the anterior part than behind, the base is deeply bi-sinuate and the angles almost rounded, the disk is covered with round punctures separated by a smooth space equal to their own diameter, and there is on each side a round supra-marginal impression near the median part; scutellum sparsely punctate; elytra slightly ampliated in the median part and equal in width at base and apex, plane with the supra outer marginal part sloping, sub-costate in the discoidal part, deeply and regularly striate punctate with the apical part irregularly punctured; legs glabrous, long, very slender; intermediate tibiæ of male slightly arcuate.

The colouration of this species varies considerably; black or piceous-red elytra predominate in the female.

Length 9¼–13 mm.; width 5½–7 mm.

Hab. Cape Colony.

Gory and Percheron's figure is not a good one; that given by McLeay (*S. horsfieldi*) is very accurate, and the colouration very true.

STRIPSIFER ZEBRA, Gory and Perch.,
Mon. Cét., p. 98, pl. 12, fig. 1.

niger, G. and P., loc. cit., p. 99, pl. 12, fig. 3.

Head black, with the clypeus flavous or maculated with black prothorax flavous and having two broad black bands and one small black patch surrounding the lateral impression; elytra flavous, with a longitudinal humeral broad fuscous band which coalesces more or less regularly with a post-median one reaching from side to side, and connected along the outer margin which is broadly infuscate, also along the discoidal part and along the suture with an apical, equally broad band; the flavous space is thus reduced to a sub-diagonal band reaching from the humeral part to the middle, a sub-humeral, supra-marginal transverse patch, and two similar supra-apical ones, but as often as not the fuscous or black bands impinge more and more on the flavous part, and the whole body, with the exception of the antennæ, which remain flavescent, is black (*S. niger*, G. and P.); in the species where the flavous parts are distinct the pygidium has a very broad, median, flavescent apical patch, and the legs, with the exception of the tarsi, are pale yellow. The facies of this species is the same as that of *S. longipes*, Sw., but the body is broader, the clypeus is very deeply incised in the anterior part, and more deeply strangulate at the base, but the shape of the prothorax and elytra and their sculpture are the same.

Length 13–15 mm.; width 7–7½ mm.

Hab. Cape Colony (George, Port Elizabeth, Uitenhage, Albany).

GEN. BRACHAGENIUS, Kraatz,
Deutsch. Entomol. Zeitschr., 1890, p. 399.

"Clypeus of ♂ slightly excised at tip, that of the ♀ more deeply, the lateral part is raised, the lateral angles are sub-rounded in the male and acute in the female; prothorax transverse, more narrowed towards the apex, and with the posterior angles moderately rounded in the male, or obtuse in the female, sides crenulate; scutellum of male obtuse at apex, that of the female shorter; elytra of the male abbreviate, not covering the last segment and pygidium; anterior tibiæ moderately robust, tri-dentate, the first tooth of those of the female little distinct; tarsi very slender, moderately elongated."

BRACHAGENIUS PICTIPENNIS, Kraatz,
Loc. cit., 1890, p. 400, pl. ii., fig. 13.

"Male: Black, opaque, elytra brownish, with the suture, the sides, an oblique discoidal line and a median spot black, the apex

more broadly black than the sides; clypeus slightly incised at apex with the sides slightly raised and the anterior angles almost rounded; prothorax densely rugulose punctate, fulvous pilose; elytra sparingly nigro-pilose, anterior tibiæ tri-dentate, the apical tooth is the longest, the basal one the shortest, but yet plain; tarsi very slender.

Length 11 mm.

Hab. Cape Colony."

BRACHAGENIUS LINEATIPENNIS, Kraatz,
Loc. cit., p. 400, pl. ii., fig. 12.

"Female: Black, opaque, prothorax somewhat shiny, sulcate in the middle, not pilose, elytra brownish, with the suture, the apical, and posterior lateral margins, and an oblique discoidal band on each side black; clypeus deeply incised at apex, and with the anterior angles sharp, it is slightly excavate; anterior tibiæ tri-dentate, basal tooth hardly visible; tarsi slender, posterior almost shorter than the tibiæ.

Length 10 mm.

Hab. Cape Colony."

I imagine that these two diagnoses are those of both sexes of one species which I have not met with as yet.

GEN. ERIOPELTASTES, Burmeist.,
Germar's Zeitschr., ii., 1840, p. 397;
Handb. Entom., iii., 1842, p. 733.

"This apparently new and rare *Trichid* is most closely allied to the long-legged *Stringophori*, and is intermediate between them and *Myoderma*. It resembles this last genus in the structure of the head, but the recurved margin of the clypeus, which is not at all sinuate in front, rises gradually, and the middle of the anterior margin is not higher than the lateral ones. The whole of the head, prothorax, pectus, and also the femora and tibiæ, have a coating of long, yellow, somewhat appressed hairs. Very peculiar are the antennæ, the club of which forms a very long, wide fan, equal in length to that of the prothorax. The buccal parts differ from those of the rest of the *Trichidæ* in the remarkable slenderness of the maxillæ and of the mando, but the shape is otherwise the same; the palpi are very long and slender; the prothorax, remarkable by its great breadth and moderate length, is not at all constricted behind, but broadest there; the opaque elytra have six indistinct rows of punctures in which stand small hairs, and between the rows there

are similar scattered punctures; the legs are noticeable for their slenderness, which is even greater than that of the males of *Agenius*, although the body of the latter is proportionately broader than that of *Eriopeltastes;* the anterior tibiæ have two very broad, curved, remote teeth, and also traces of a third in the form of an angular outcurving of the margin; the intermediate tibiæ are almost straight and spiny on the outer surface like the hind ones, on which, owing to the scattered spines, no teeth can be any longer detected, and it differs thus most markedly in that respect from *Stringophorus*. The tarsi are more than twice as long as the tibiæ, very slender, glabrous, spiny at the joints; the very slender claws are only slightly bent, and the "after claw" between them is unusually small and emits two bristles; the mesosternum is scooped out between the middle coxæ, and does not project. On account of the short, not convex, strongly retracted abdomen, I take the only example I have obtained to be a male; I suppose that in the female the upper tooth of the anterior tibiæ will be more distinct, the tarsi shorter, and the antennal club smaller.

ERIOPELTASTES LEUCOPRYMNUS.

Black, with a flavous pubescence; antennæ, palpi, anterior tibiæ and tarsi, median tarsi and elytra yellowish fulvous; anal opercule (pygidium) greyish white. Length $3\frac{3}{4}$ mm."

I have not yet met with this species.

TRIBE VALGINI.

The only valid character I find to separate the insects included in this Tribe from the *Trichiini* is the shape of the scutellum, which is sharply triangular, and moderately long or very elongate. The great distance separating the intermediate and posterior coxæ was deemed at one time to be the distinctive mark of the genus *Valgus*, containing many widely dispersed species. It has been now split into many genera—too many, I think—but as in some of them that great separation between the coxæ is greatly reduced, it does no longer remain a fundamental character. This induces me to include in the Tribe the somewhat aberrant genus *Calometopus*, which seems to form a link between the *Trichiini* and the *Valgini*. It cannot remain in the former on account of its sharply triangular scutellum; it differs greatly in general facies from the true *Valgini*, but it is also clothed, although partly, with squamulose hairs.

In the true *Valgini* the clypeus is very elongated but not cleft,

the head can be retracted into a prosternal cavity; the elytra are short, quite plane, truncate at apex, leaving the greatest part of the propygidium, which is very large, uncovered; the hind legs especially are very long.

This Tribe is divided into two sections.

A^2. Elytra not truncate behind; pygidium not vertical; terminal end of hind tibiæ with three digit-like processes.	
Head non-retractile; coxæ not broadly separated; pygidium slanting, very convex; white markings squamose	*Calometopus.*
A^1. Elytra truncate behind; pygidium vertical; terminal part of hind tibiæ muticous.	
Head retractile; coxæ very broadly separated; elytra much broader than the prothorax; last abdominal spiracle spinose; body covered with scales and fascicles of squamose hairs; anterior tibiæ 5-dentate in the ♂, 3-dentate in the ♀	*Comythovalgus.*
Head retractile; coxæ not broadly separated; elytra not broader than the prothorax; last abdominal spiracle spinose; body covered with minute, scale-like hairs; anterior tibiæ 5-dentate in the ♂, 3-dentate in the ♀	*Stenovalgus.*

Gen. CALOMETOPUS, Blanch.,
Catal. Coll. Mus., Par. Ins., i., p. 45.

Mentum parallel laterally, fused with the ligula, deeply and quadrately incised at tip, the excised part being nearly one-quarter of the whole length, the two lobate parts are still broad and rounded at tip, the labial palpi are inserted on the outer face; maxillæ long, hairy inwardly, upper lobe slender, horizontal bearing a thick pencil of long hairs; clypeus longer than the head, as deeply incised at apex as the mentum, but the incision is more triangular; antennal club slender, longer than the pedicel in the male (the only sex known to me); eyes very large; prothorax as broad as long, sub-hexagonal but with the hind angles not quite rounded; elytra plane, elongate conspicuously narrowed behind, leaving the sides of the dorsal part of the four ultimate abdominal segments uncovered; pygidium triangular, sub-vertical; abdomen and pectus compressed laterally; no mesosternal process; legs very slender, long, especially the tarsi which are longer than the tibiæ the fore ones of which are unidentate, the terminal part of the hind tibiæ end in three long digit-like processes, and the two spurs are very long and extremely slender.

Differs from the other genera included in this Tribe in having the scutellum sharply acuminate; the genus has a representative in Senegambia, and another in Central Africa.

CALOMETOPUS NYASSÆ, Westw.,
Plate XLII., fig. 8.
Proc. Ent. Soc. Lond., 1868, p. 27, pl. i., fig. 1.

Male: Black, not shiny; clypeus clothed with greyish-white, appressed, thin hairs, head covered with a very short blackish pubescence; the prothorax is also covered with a similar tomentum, but has on the sides a broad band of long, appressed, squamiform whitish hairs mixed with a few flavescent ones; the very long, acuminate scutellum is concolorous; the glabrous elytra are strongly callose at the shoulder, and the triangular callus is continued as a sharp ridge reaching the apex, the supra-epipleural fold is almost vertical, and from the median part is so narrowed that the sides of the dorsal part of the abdominal segments are uncovered, and the apical part of the elytra is hardly more than half the width of the base, the dorsal part is plane but the suture is as sharply carinate as the dorsal ridge, the ground colour is black, but there is on each side three straw-coloured patches along the suture, and a longitudinal band along the dorsal ridge; they are faintly punctate and singly sub-acuminate rounded at apex, with the angle of the suture very sharp, and they cover only a part of the propygidium; pygidium not vertical, as long as broad, acuminate, red, punctulate, glabrous but having in the centre a narrow band of appressed, squamose, white hairs; the lateral dorsal part of the abdominal segments has a patch of similar hairs, which form also on the three basal ventral segments a band extending from the centre to half the width, the pectus is sparsely clothed with a greyish pubescence, and the mesothoracic epimera have each a patch of squamose hairs; anterior and intermediate fermora briefly pubescent; tibiæ and tarsi glabrous; the edges of the three digit-like processes of the terminal part of the hind tibiæ are pubescent.

Length 13 mm.; width 5 mm.

Hab. Southern Rhodesia (Sebakwe).

COMYTHOVALGUS, Kolb.,
Berl. Entom. Zeitschr., 1884, p. 166.

Mentum elongate, sub-parallel, deeply incised in front, the lobes slender, upper lobe of maxillæ surmounted by a very long pencil of hairs; clypeus of about the same length as the head, slightly attenuate and emarginate in front; antennæ short, club ovate, shorter than the pedicel; head retractable into a prosternal cavity, in the manner of *Curculionidæ*, *i.e.*, it can be drawn flush with the vertical margins of the anterior part of the prothorax; prothorax

nearly as broad as long, and slightly narrowed laterally in front; elytra more or less transverse, narrower behind than at the base and leaving the sides of the dorsal part of the 4 last abdominal segments uncovered; pygidium large, uncovered by the elytra; pygidium very broad, vertical, slightly convex in the male; metasternum very broad; posterior and intermediate coxæ broadly separated; anterior tibiæ 5-dentate, tibiæ massive, compressed, intermediate and posterior tarsi long, slender, the first joint of the hind tarsi slightly longer than any of the others.

COMYTHOVALGUS FASCICULATUS, Gylh.,
Plate XLVII., fig. 13.
Schoenh. Syn. Ins., i., 3, p. 43.

Fuscous, entirely covered with extremely dense scale-like, appressed, light fulvous hairs, and having in well-preserved examples a very plain, lighter-coloured patch of scales on each side of the scutellum; clypeus acuminate, slightly emarginate at tip; head bearing two small fascicles of hairs; prothorax with ten fascicles of squamose hairs disposed as follows: two in the middle of the anterior margin, two in the centre of the disk, two in the centre of the base, and two on each side of the discoidal parts; the two anterior tufts are sometimes greatly reduced; elytra almost twice as broad as the prothorax, plane, narrower at apex than at base, plane, vertical laterally, leaving the sides of the dorsal part of the abdominal segments uncovered as well as the propygidium, they have on each side four fascicles of squamiform hairs, viz., one somewhat bi-fasciculate at the shoulder, two along the outer margin, and one at the apex; the broad propygidium has two long ones at the apical margin, and the pygidium two in the centre, and two smaller ones at the apex; anterior tibiæ with five outer teeth in the male, three of these are strong and the two intermediate ones very small, only tri-dentate in the female, the pygidium of which is shaped as in the male, intermediate and hind tibiæ sub-fasciculate.

Length 5–5¼ mm.; width 3½ mm.

Hab. Cape Colony (Albany; Uitenhage, Port St. John), Natal (Durban, Maritzburg), Southern Rhodesia (Sebakwe).

GEN. STENOVALGUS, Kolbe,
Stett. Entom. Zeit., 1892, p. 141; loc. cit., 1897, p. 193.

Body narrow, parallel; pencil of maxillæ extremely long; prothorax straight laterally, longer than broad, the anterior angles conspicuously sharp; scutellum long; elytra hardly longer than

the prothorax not wider, and about as wide as long, plane and striolate; propygidium wide, last abdominal spiracle spinose; pygidium rounded at apex; anterior tibiæ 5 and 3 dentate according to the sexes; body covered on the upper side with minute recumbent, squamulose hairs.

Key to the Species.

Dorsal part of elytra with series of whitish scaly hairs .. .. .. *sebakuanus.*

Dorsal part of elytra with series of flavescent minute hairs, and a broad transverse band of yellow scales on each side.. .. .. .. *bimaculatus.*

STENOVALGUS SEBAKUANUS, n. sp.

Male: Black, with the palpi and antennæ flavo-rufescent, covered with short, whitish, hair-like scales which are not sufficiently dense to hide the teguments; clypeus attenuate towards the apex which is rounded, and not incised; prothorax almost parallel, longer than broad, and as long almost as the elytra, almost plane but sloping in front, the anterior angles are sharp and strong and project conspicuously beyond the anterior margin; the surface is strigillate longitudinally, there is a longitudinal median raised line reaching from apex to base, and the surface is beset with sub-erect, small white scales; scutellum densely scaly; elytra parallel, slightly longer than broad, truncate behind, plane, vertical laterally and covering there the dorsal part of the abdomen; they have on the flat dorsal part and on the sides regular series of erect, hair-like white scales; propygidium uncovered, sharply dentate laterally; pygidium vertical, squamose; anterior tibiæ 5-dentate; posterior tarsi very long, the basal joint longer than any of the others.

Female: Rufescent, with the head and prothorax black; clothed like the male with whitish hair-like scales, and smaller and less parallel, the narrower prothorax is more attenuate laterally towards the apex; the elytra are narrowed behind, but they still cover the dorsal part of the abdomen, and also almost the whole propygidium; the pygidium is sub-horizontal and vertically convex at apex; tarsi as long as in the male.

Length 4 mm.; width 2 mm.

Hab. Southern Rhodesia (Sebakwe).

STENOVALGUS BIMACULATUS, n. sp.

Plate XLVII., fig. 14.

Black, with a piceous tinge, vertical outer side of elytra sub-rufescent; head with thick scales, clypeus with minute sub-flavescent

scales; prothorax very elongated, strigillate longitudinally, and with a median raised line, moderately densely squamose on the disk and with denser scaly hairs laterally behind; scutellum strigose punctate, glabrous; elytra parallel, vertical laterally, having on each side five discoidal striæ and a series of very short squamose hairs in each interval, and also on the deflexed sides, slightly in front of the median part is a transverse band of flavous scales; the propygidium is almost completely uncovered, the pygidium is vertical in the male, sloping and convex in the female, and both are clothed with contiguous golden-yellow scales, like the abdomen and part of the pectus; legs and antennæ slightly rufescent.

This description of the ♂ is made from an example from Beira, Mozambique. In another example, which I take to be a ♀ from Sebakwe in Southern Rhodesia, and which is in a bad state of preservation, the scales are much more scattered, and there are no traces of the two discoidal elytral bands.

Length 4½ mm.; width 2 mm.

Tribe MYODERMINI.

The insects included in this Tribe differ from the Trichiini in having much shorter tarsi; the clypeus, which is of a very variable shape, differs from that of the *Trichiini*, the labial palps are inserted in a deep, lateral cavity, the maxillæ are more robust, and in most cases plurisetose only at apex instead of being penicillate, the antennal club is not longer than the pedicel in the ♂, the lateral part of the base of the prothorax is sharp, but also occasionally slightly rounded (*Xiphoscelidus*) and the median part is not arcuate; the scutellem is cordiform; the elytra moderately plane or convex; the basal joint of hind tarsi is as long as or longer than the second, ampliate and sub-nodose at apex, or sometimes angular; the apical part of the posterior tibiæ is not dentate or spinose; and there is no mesosternal process.

This Tribe, which seems to consist of termitobious insects, must be divided into two groups. In the first, the external edge of the hind coxæ, or side pieces, do not project beyond the edge of the abdomen (*Myodermides*), whereas in the second (*Elpidides*), the edge of the coxæ does plainly project, this being due to the great development of the hind femora in both sexes. One of the genera, *Diploa*, was included in the Tribe *Cetonini* (Prototypic Cetonides) by Kolbe, and interpolated by him between *Heteroclita* and *Xiphoscelis*, but it differs greatly from the latter on account of the shape of the scutellum, and the absence of sternal process.

Key to the Genera.

A². External edge of coxæ completely hidden by the elytra in both sexes .. .. MYODERMIDES.

B². Upper lobe of maxillæ very short, spatulate, sparsely setulose at tip.

Ligular part, broadly scooped at apex.

Hind tibiæ very little dilated at apex .. .. *Myoderma.*

Hind tibiæ plainly dilated at apex .. .. *Diploa.*

B¹. Upper lobe of maxillæ lanceolate and penicillate at tip.

Ligular part bi-lobate .. .. *Diploeida.*

A¹. External edge of coxæ bulging beyond the elytra in the male (ELPIDIDES.)

Upper lobe of maxillæ very short, sub-quadrate.

Hind femora and tibiæ abnormally developed in the male.

Ligular part of mentum projecting as a small bi-lobate process .. .. *Elpidus.*

Ligular part of mentum truncate at tip, the cavities for the insertion of palpi quite apical .. .. *Xiphoscelidus.*

GEN. MYODERMA, Burm.,
Handb. d. Entom., iii., 1842, p. 732.

Mentum longer than broad, narrower at base than at apex and without any traces of a ligular part, deeply and broadly emarginate in the centre and having quite laterally a very broad cavity reaching the outer angle for the insertion of the labial palpi the last joint of which is sub-cylindrical, but tapers slightly towards the apex where it is truncate; maxillæ somewhat robust, but laminate inwardly and ending at apex in a rounded process, upper lobe, or galea, reduced to a spatuliform process slightly longer than broad, and pluri-setose at tip; clypeus parallel, produced in the middle of the anterior part in a short, reflexed lamina more sharply triangular in the ♂ than in the ♀; eyes very large, canthus long, very sharp; antennal club not longer than the pedicel in either sex; prothorax broader than long, ampliate rounded laterally in the middle, bi-sinuate at base with the basal angle sharp; scutellum triangular, sharp at tip; elytra sub-parallel, but plane, costate, mesothoracic epimera narrow but visible from above; pygidium sub-vertical; mesosternum with a short, blunt process; legs moderately long;

anterior tibiæ strongly tri-dentate outwardly; and hind tibiæ pluri-spinose on the upper side, tarsi hardly longer than the tibiæ.

This African genus is represented by three species. The South African one has a wide range, reaching Mombassa in British East Africa.

The dried specimens have a most powerful, unpleasant smell. Mr. G. A. K. Marshall states that his only record of this species is "found on dead wood," but that he believes it will prove to be termitophilous.

MYODERMA RUFA, Ch. Waterh.,
Ann. and Mag. Nat. Hist., xv., 1885, p. 379.

Head, prothorax, elytra and abdomen brick-red, moderately shiny, edge of clypeus, breast and legs black, upper and under sides clothed with a very dense, short, yellowish pubescence forming almost a pile; antennæ red; clypeus produced triangularly in the anterior part in the male and with the two anterior angles more rounded than in the female in which the anterior part is bi-sinuate on each side of the median elevation, and the edge of the clypeus is produced into a little crest above the ocular canthus; the surface of the head, as well as that of the prothorax, is covered with contiguous, small cicatricose punctures; the prothorax is a little wider than long, somewhat convex, gradually ampliated and rounded laterally in the centre, and has an impressed longitudinal median line, sometimes, however, difficult to trace; the red scutellum is narrowly edged with black; the elytra, which are punctured somewhat as the prothorax, have on each side five rounded costæ including the suture; the pygidium, which is slightly more slanting in the female than in the male, is also finely punctate, and as pubescent as the elytra; the abdomen is finely punctulate, like the pectus.

Kolbe has described under the name of *M. gestroi* a species which, judging from his description, differs mainly from *M. rufa* in being larger and in the pubescence of the prothorax and elytra being longer. I have seen such examples from Southern Rhodesia, but I cannot consider them as a different species as I have seen intermediate forms between them and *M. rufa*, of which I have a co-type given me by C. Waterhouse.

Length 12–17 mm.; width 7–9½ mm.

Hab. Natal (Zululand), Transvaal (Pietersburg, Zoutpansberg, Lydenburg), Southern Rhodesia (Bulawayo, Sebakwe), British East Africa (Mombassa).

GEN. DIPLOA, Kolbe,
Sitzungsb. Gesellsch. naturf. Freund. Berl., 1893, p. 65;
Käf. Ost. Afrikas, 1897, p. 179.

Lygyromorphus, Arrow, Ann. and Mag. Nat. Hist., viii., 1901, p. 257.

Mentum elongated, slightly ampliated laterally towards the apex which is broadly notched, and without any visible traces of separation with the ligula; the labial palpi are inserted in a very deep lateral cavity similar to that of *Myoderma*, and the maxillæ have also the same shape, but they are more slender, and the galea is slightly shorter and more ovate; clypeus as long as the head and with the central part of the anterior part projecting, but not reflexed; antennæ short, club nearly equal in length to the pedicel (♀); prothorax moderately convex, and moderately attenuate rounded in the anterior part, nearly straight laterally, strongly bi-sinuate at the base the outer angles of which are not rounded; scutellum cordiform; elytra slightly sinuate laterally below the humeral callus, and slightly ampliated thence to the posterior part, convex behind; pygidium broad, sub-vertical, slightly convex in the female; prosternum simple, hind coxæ not greatly developed (♀); legs short, anterior tibiæ tri-dentate outwardly, but the upper tooth is almost obliterated; intermediate and posterior tibiæ with a feeble tooth on the upper edge, which is plainly crenulate; apical part of the hind tibiæ dilated, upper spur compressed, blunt at tip in the ♀; all tarsi short, last joint of hind ones dilated at apex but not angular.

The facies of the insect on which this genus is founded is more that of a Melolonthidous than of a Cetonidous insect, and Mr. G. A. K. Marshall informs me that it flies somewhat in the manner of the former. The buccal organs are similar to those of *Myoderma*, but the hind legs are more powerfully built, and the thickened hind spurs imply digging or burrowing habits.

DIPLOA PROLES, Kolb.,
Loc. cit., p. 65;
Käf. Ost. Afrikas, 1897, p. 179, pl. 2, fig. 18.

D. rufiventris, Arrow, l.c., p. 257.

Dark chestnut-brown, with the antennæ flavescent; clypeus as long as the head, somewhat concave owing to the anterior margin being plainly raised, diagonally produced in front from the rounded outer angles to a broadly triangular projection, and, like the head, covered with contiguous, sub-scabrose punctures from which spring

minute, somewhat scattered, fulvous hairs; prothorax convex, as broad as long, slightly attenuate rounded in the anterior part for about one-third of the length, nearly but not quite parallel thence to the outer basal angle which is not rounded, but is not sharp, the base is strongly bi-sinuate, and the surface is covered with contiguous, scabrose punctures divided by a very thin, sharp wall, which gives them a shagreened appearance; from these punctures spring sparse, minute, fulvous hairs, but the outer margin is fringed with moderately long fulvous hairs; in the female there is a median, anterior smooth line, occasionally obliterated; elytra ampliated behind from about the median part, slightly sinuate laterally, convex in the posterior part, and covered with scabrose, contiguous punctures, bearing each a minute, fulvous hair; they are slightly striate, the suture is raised, and there are on each side two costules in the discoidal part; pygidium and under side closely punctate and clothed, like the legs, with a long, fulvous pubescence; upper spur of hind tibiæ slightly compressed and rounded at apex in both sexes.

Length 12½–13 mm.; width 7–7½ mm.

Hab. Southern Rhodesia (Salisbury, Enkeldoorn, Umtali). Described originally from German East Africa.

DIPLOEIDA, n. gen.

Mentum quadrate, with the ligular part conspicuously attenuate laterally, and divided at apex into two lobes by a deep, broadly triangular incision, labial palpi inserted almost on the outer face of the lobate part, last joint sub-fusiform outwardly, maxillæ somewhat robust, upper lobe somewhat elongate, simple, surmounted by a lateral fascicle of hairs; clypeus diagonally narrowed laterally, triangularly incised at apex, a little longer than the head; eyes moderately large, the canthus dipping and very hairy; prothorax slightly longer than broad, narrower at the apex than at the base with the hind angles rounded, strongly sinuate along the base, somewhat convex in the posterior part; scutellum cordiform, nearly as broad as long; elytra with the humeral callus strongly developed and almost overhanging the outer margin, which is only slightly sinuate, and covers the metathoracic epimera; mesothoracic epimera vertical, hardly visible when looked at from above; legs robust; anterior tibiæ tri-dentate, the intermediate and posterior dilated at apex, plainly toothed on the upper margin, tarsi moderately short; metasternum moderately broad, the epimera not bulging, mesosternum scooped out.

Allied to *Diploa*, but apart from the shape of the clypeus, which is very different, it is differentiated by the upper maxillary lobe, which

is lanceolate instead of being spatuliform, the labial palpi are inserted on the outer face instead of laterally, the ligular part is differently incised, and the last joint of the labial palps is not so broadly swollen outwardly.

DIPLOEIDA MODESTA, n. sp.

Dark chestnut-brown, sub-opaque; antennæ light chestnut; clypeus sub-parallel laterally for half its length, attenuated diagonally thence to the anterior part which is triangularly incised, the apex of the incision is prolonged into a slightly raised line dividing the anterior part of the clypeus into two shallow hollows, both head and clypeus are roughly and closely punctured, and the canthus of the eyes is very densely hairy; prothorax convex, one-fourth broader at the base than at the apex, not sinuate laterally and with the basal angles rounded, the base itself is bi-sinuate; the surface is covered with round, shallow punctures separated from each other by a smooth space equal to their own diameter, and the outer margin has a fringe of moderately long, fulvous hairs; prothorax cordiform, deeply punctate; elytra a little broader than the prothorax, slightly sinuate laterally, and somewhat ampliated thence towards the posterior part, they are coriaceous rather than punctate, the suture is tectiform, and they are costate, with the discoidal costæ better defined than the lateral ones; pygidium sloping, glabrous, faintly punctate except at apex; abdominal segments with one or more series of punctures bearing each a long, fulvous hair; pectus and legs moderately hairy; legs strong, tarsi short; anterior tibiæ tri-dentate; upper spur of hind tarsi slightly obtuse at tip, and not very broad; mesothoracic epimera reduced to a mere lamina hardly visible from above.

Male unknown.

Length 12½ mm.; width 6 mm.

Hab. Transvaal (no exact locality).

ELPIDUS, n. gen.

Mentum ovate, very convex, so broadly scooped out laterally for the insertion of the labial palps that the ligular part is at the back of the transverse excavation, and projects as a small, bi-lobate process; last joint of labial palps very thickly swollen in the lower part, and subacuminate at tip, maxillæ short, weak, the galea very small, hardly longer than broad and surmounted by a few setæ; last joint of maxillary palps very long, fusiform, but somewhat blunted at the tip; clypeus straight, emarginate in front, plainly concave in both sexes;

canthus long, thick, eyes moderately broad; antennal club ovate, as long only as the pedicel in the male, shorter in the female; prothorax diagonally attenuate laterally in the anterior part, straight in the posterior, the base strongly bi-sinuate with the outer angles distinct, discoidal part somewhat convex behind; scutellum cordate, rounded at apex; elytra broader than the prothorax at the base, slightly sinuate in both sexes, slightly longer than broad, narrower at apex than at base especially in the ♂, and covering the propygidium; mesothoracic epimera vertical, but distinct in the ♂, more narrowly laminate in the ♀; pygidium vertical and moderately convex in both sexes; anterior tibiæ tri-dentate, tarsi long, anterior and intermediate slender, posterior robust, the joints greatly compressed; in both sexes the hind femora are greatly thickened, in the ♂ still more than in the ♀, the hind tibiæ are very broadly dilated and mucronate at each end in the ♂, but not in the ♀, the inner mucro being nearly as long as the broad but sharp upper spur, in the ♀ this spur is compressed and blunt at tip; owing to the great development of the hind thighs, the metasternal epimera stand away from the elytral fold, which, however, is not emarginate above it; this character is very conspicuous in the ♂, but much less so in the ♀, although in that sex the thighs are also greatly developed; the intermediate and posterior tibiæ have only a faint trace outwardly of the oblique carinæ.

I am informed by the Rev. J. A. O'Neil that the species included in this genus is termitophilous. It has a great likeness to *Xiphoscelis* owing to the great development of the hind coxæ, but it differs from it in many important characters, especially in the shape of the hind tarsi, which are much compressed as in several species of *Heterochelus* (*H. detritus*, *H. chiragricus*, &c.) of the Sub-Family *Hopliinæ*, and the terminal part of the hind tibiæ is mucronate in the ♂ as in other species of the genus above mentioned. The shape of the genital clasps of the ♂ is not unlike that of some species of the *Sparrmannini*.

ELPIDUS HOPEI, Burmeister,
Plate XLVII., fig. 5.
Handb. Entom. iii., 1842, p. 614.

Black, antennæ and elytra testaceous yellow, the latter with the suture, a diagonal discoidal band on each side, and the outer margin black; upper side nearly opaque; head and clypeus closely shagreened; prothorax plainly shagreened, convex in the posterior part, grooved longitudinally in the centre, and having along the

outer margin a series of black bristles; scutellum closely scabrose punctate; elytra very slightly costate and not distinctly seriate punctate, plane, a little attenuated behind in the male, not in the female; pygidium glabrous, closely punctulate, black or reddish in the female, but having in the male along the base two broad, transverse, white bands, divided by a narrow interval; abdomen and legs glabrous, shiny, sparsely punctate; pectus sparsely clothed with a light fulvous pubescence.

Length 11 mm.; width 6 mm.

Hab. Cape Colony (Humansdorp). Appears in March, and the Rev. J. A. O'Neil considers it to be termitobious.

XIPHOSCELIDUS, n. gen.

Mentum ovate, ligular part narrowed, the cavities for the insertion of the palpi almost contiguous at the apex, last joint of labial palpi thick, twice and a half as long as broad, slightly attenuate at tip; maxillæ short, feeble, upper lobe, or galea, very small, oblong, and bearing a few setose hairs at tip; maxillary palps long, the apical one sub-fusiform outwardly, blunt at tip; clypeus shorter than the head, slightly narrower at the base than at the apex, where it is only slightly sinuate with the angles slightly rounded, yet distinct, in both sexes, canthus of the eyes very thick and long; antennal club longer than the pedicel in both sexes, but especially so in the male; prothorax diagonally ampliated laterally from the apex to a third of the length, straight thence to the strongly arcuate base the angles of which are rounded; scutellum cordiform; elytra elongate, plane, not sinuate laterally, and narrower at apex than at base in the ♂, slightly sinuate and of equal width at both ends in the ♀; propygidium partly uncovered in both sexes, and partly overhanging the pygidium which is vertical in the ♂ and sub-horizontal in the female; abdomen compressed in the male, and with the hind femora very robust in both sexes, but especially so in the male; anterior tibiæ tri-dentate in both sexes, upper inner angle produced inwardly in the ♂ into a very long, strongly mucronate broad process which has absorbed the upper spur; in the ♀ the shape is normal, and both spurs are blunt at tip; the intermediate tibiæ have only a faint trace of a tooth on the upper edge, but none on the hind ones in either sex.

The singular species on which the genus is founded is probably crepuscular. It is found at a certain depth in the heaps of excrements of ancient date, that have been heaped outside the galleries by the white ants of the genus *Hodotermes*.

XIPHOSCELIDUS LUGUBRIS, Péring.,
Plate XLVII., fig. 4.
Trans. S. Afric. Phil. Soc., iv., 1888, p. 105.

Male: Black, with the elytra rufescent-brown, and having on each side a discoidal, black, sub-velvety patch; head and clypeus deeply punctured, clothed with moderately dense, long, flavescent hairs; antennal club very long; prothorax shagreened and clothed with partly appressed, long, but not very dense, flavescent hairs; scutellum scabrosely punctate, glabrous; elytra elongated, narrowed behind, not sinuate laterally, plane above, declivous laterally, not costate nor punctate striate, but having series of short, equi-distant, erect, black bristles; the mesothoracic episterna are visible, but are not flush with the humeral part of the elytra; the propygidium is only partly covered by the elytra, and their apical edge overhangs the triangular, vertical, but slightly convex pygidium; the abdomen is compressed laterally owing to the very great development of the hind femora, which are nearly as broad as long; owing to the great development of the thighs, the metasternal epimera project strongly beyond the non-sinuate elytral fold, the short, hind tibiæ have the inner angle produced into a conspicuous, hamate inner process which has absorbed the upper spur, the lower one only being left, and it is very slender; the inner spur of the anterior tibiæ is long and slender; all the tarsi are long, and the joints very spinose. The shape of the clasps of the genital armature is similar to that obtaining among the *Pachypodini* of the Sub-Family *Melolonthinæ*.

Female: Completely black, and with the sub-velvety discoidal band on each side of the elytra always conspicuous; clypeus as in the male, but slightly more narrowed near the base; prothorax also like that of the male, but with long, bristly hairs laterally; elytra more sinute laterally than in the male, but not uncovering the edge of the coxæ, slightly ampliated thence to the posterior part where they are, if anything, slightly wider than at the base, slightly depressed on each side of the suture in the anterior part, and having a distinct ridge running from the shoulder to the apex, the humeral callus alone is punctured, and the seriate hairs are smaller than on the male, and greyish; pygidium and abdomen almost glabrous; pectus briefly pubescent, the pubescence greyish, legs normal. The species was originally described from one ♀ example.

Length 9–11 mm.; width 5 mm.

Hab. Cape Colony (Stellenbosch).

TRIBE CETONINI.

As I have already mentioned in the Key to the five divisions of the Sub-Family, the two characteristic features of the genera and species included in this Tribe consist: (*a*) in the forcing forward of the meso-thoracic epimera in such a manner that they have become inserted between the prothorax and the elytra. (There is no exception to this rule, and any insect, however much Cetonidous its appearance, must be removed from the Tribe if that character is wanting: this bulging, however, is a matter of degree, and in the *Ischnostomii* these epimera are not very conspicuous in the male, but they are more marked in the female.) (*b*) The scutellum is long, sharply or very sharply acuminate at tip, seldom slightly obtuse, even in such species where the base of the prothorax impinges on or covers entirely that part. The elytra are more or less attenuated behind, very seldom parallel (some species of *Cremastochilides*), never gibbose convex; they are deeply sinuated laterally at some distance from the base, and this sinuation exposes to the view the external edge of the hind coxæ which does not lie plane with the metasternum, and the apical angle of which projects often strongly, and is angular or even spinose; the propygidium is covered by the elytra in the *Cetonides*, but not completely in the *Cremastochilides*. The pygidium is vertical in both sexes in the first-named Sub-Tribe, often gibbose in the second. The last abdominal spiracle is plane in the *Cetonides*, but in the *Cremastochilides*, with the exception of *Macroma* and *Hoplostomus* it is tubular, aculeate or even spinose, but this character is also very conspicuous in two species of *Mausoleopsis*, of the *Leucocelites*, and in their case this would seem to point to a myrmecobious or termitobious mode of life, because the great majority of the *Cremastochilides* lead such a life. The legs are compressed laterally, and either massive, robust, or slender; owing to their compression the slanting ridge "en chevron" found on the upper outer side of the intermediate and posterior tibiæ of many *Melolonthini* has disappeared, and is reduced to a more or less sharp or distinct tooth in the great majority of species; occasionally it is almost obliterated; in the genera *Trichostetha* and *Odontorrhina* the intermediate tibiæ have two superposed teeth; this occurs also in *Diplognatha gagates*, but its variety *silicea*, its local representative here, has only one; in the genus *Porphyronota* the hind tibiæ are serrulate on the upper ridge in addition to the normal tooth, which is, however, occasionally absent. The hind tibiæ are always ending at the outer apical end in three spinose processes, the outer of which

is usually short, sometimes even only angular. This character distinguishes the *Cetonini* from the *Ageniini*, *Myodermini*, and *Valgini*, in which these processes are wanting. The spurs, set close to each other, are inserted in the outer angle. Another important character is the presence of a sternal process formed by the meso- and metasternum, and which may be very long, plane, arcuate or hamate, porrect or declivous, projecting much beyond the coxæ, only moderately projecting, or truncate in front in a line with the coxæ. This sternal process is occasionally present in the *Ageniini* (*Stripsipher*), but in the *Cetonini* the only exception is that of *Xiphoscelis*, one of the most aberrant genera of the Tribe, and in which this process is absent, the mesosternum being broadly grooved longitudinally in front, resembling thus that of some *Myodermini*, with which *Xiphoscelis* is undoubtedly connected, but even in this case the metasternum emits a slender carinulate process penetrating well into the base of the coxæ. The greatest part of this sternal process is produced by the intrusion in a more or less aculeate form between the intermediate coxæ of the metasternum, the point of which is fused with the base of the mesosternum, which is thus thrust forwards. In many cases there are plain traces of a transverse or arcuate suture dividing the two, in many cases also it is totally obliterated; in most *Leucocelites* this suture is quite apical, and the sternal process is thus marginate.

In many species the sexual differences are very great; in the majority of cases, however, the two sexes are alike. The *Cetonides* comprise some of the most brilliantly clad species of Coleoptera, but the species of *Cremastochilides* have seldom bright colours.

The division of this Tribe into natural groups is a most difficult one, as, owing to the great affinities that many genera have in several directions, it is well-nigh impossible to assign them one place only in a synoptic table. Their arrangement is thus arbitrary. Burmeister endeavoured to characterise his groups more fully than he did in his "Handbuch der Entomologie," but he admitted himself his partial failure by not doing so; Lacordaire's arrangement seems more natural, yet it is unsatisfactory on the whole.

Kolbe has proposed a division into two distinct groups according to the facies coupled with the shape of the basal joint of the hind tarsi.

The massive or somewhat massive species, the basal joint of the hind tarsi of which is angular and acuminate or even spinose outwardly on the upper side, he places among the Prototypic Cetonides.

The plane, elongated species, with usually long tarsi, the basal one of which is small, short, and obtuse at apex, come in the True Cetonides.

This division, like all divisions resting on one or two characters only, is open to grave objections. The dilatation of apex of the basal joint of the hind tarsi is found occasionally in the female only (*Micrelaphinis*); a slender form like *Homalothyrea*, the general appearance of which is that of *Leucocelis*, or a depressed one like *Tephræa*, will have to be interpolated in the vicinity of *Anoplochilus* or *Psacadoptera*, with which they have no relationship whatever, &c. On the other hand, in the second division we are led to include, as Kolbe himself has done (Die Käfer Deuts. Ost. Afrikas, 1897), the *Cremastochilides*, the habits and facies of which are so very peculiar, with the *Ceratorrhinides*, *Schizorrhinides*, &c. This is a most unnatural grouping.

But if we associate with the two characters mentioned by Kolbe others, such as (*a*) the presence or absence of an antecoxal prosternal vertical process, and (*b*) the shape of the elytral costæ, when they exist, and especially the sculpture of the first two, or more, dorsal intervals, we find that, in so far as the African CETONINI are concerned, the arrangement which I propose brings together species and genera the affinities of which are made evident by close examination. I may add that I believe that this grouping will prove equally natural when applied to the CETONINI of the whole world.

A linear arrangement is never a perfect one; thus, for instance, *Elaphinis* is greatly removed from *Micrelaphinis*, and *Clinteroides* from *Pseudoclinteria*, of which they are undoubtedly near relatives. It is owing in the first case to *Micrelaphinis* having non-geminate elytra, striæ, and a broadly dilated basal joint of the hind tarsi in the ♀, two characters lacking in *Elaphinis*. In the case of the other two genera which have in common a scutellum covered by the base of the prothorax, only one character is resorted to for separating them, viz., the non-dilatation, in *Pseudoclinteria*, of the basal hind tarsal joint, this character being strongly in evidence in *Clinteroides;* although the arrangement I propose relegates these genera in two different sub-divisions, it should not be inferred that their affinities are impaired thereby. It is only an instance of the homogeneity of the CETONINI; others are *Gametis* (Cetonides) and *Dulcinea* (Goliathides); *Discopeltis* (Cetonides) and *Glaucocelis* (Leucocelites), &c.

Key to the Sub-Tribes.

A^2. Prosternum without an ante-coxal vertical process.

Spiracle of last abdominal segment plane * .. .. .. CETONIDES.

* One species of *Mausoleopsis* excepted.

B³. Body more or less massive, elytra more or less distinctly costate, dorsal intervals striate punctate or not.

Basal joint of hind tarsi as long as or longer than the second, broadly triangular, or angular, even spinose outwardly .. .. GOLIATHITES.

B². Body plane, elongated, seldom convex (♀); elytra costulate or not, dorsal intervals punctate, striate punctate, or when geminate striate, striate from base to apex.

Basal joint of hind tarsi sub-cylindrical outwardly CETONITES.

B¹. Body mostly plane and elongated; elytra costate, the two dorsal intervals geminate striate in the posterior half only .. .. LEUCOCELITES.

A¹. Prosternum with an ante-coxal vertical process.

Spiracle of last abdominal segment acute or spinose * .. .. CREMASTOCHILIDES.

SUB-TRIBE GOLIATHITES.

In this Sub-Tribe are included nearly all the Cetoninous species the facies of which is somewhat massive, the elytra bi- or pluricostate on each side, with the dorsal intervals either non-punctate, or, if punctate, normally punctate or striate-punctate; the basal joint of the hind tarsi is either angular, sharply angular, and even spinose outwardly.

This section comprises some of the largest Cetonid (*Goliathus*), as well as some of the smallest ones (*Micrelaphinis*).

Key to the Genera.

A². Basal joint of tarsi angular or spinose outwardly in both sexes. Body massive, suture not highly carinate.

B². Anterior margin of prothorax angular or sub-dentate in the centre.

C⁴. Clypeus similar in both sexes, the outer angles rounded.

*a*². Base of prothorax straight above the scutellum.

Elytra considerably broader than the prothorax; scutellum deeply sunken; hind tibiæ strongly mucronate at apex; joints of hind tarsi long in the ♂ .. .. *Xiphoscelis.*

* *Macroma* excepted.

a^1. Base of prothorax emarginate above the scutellum.

Last joint of palpi cylindrical; maxillæ inermous; hind tarsi short, joints triangular, very hairy .. .. *Rhinocæta.*

Last joint of palpi obliquely truncate; upper lobe of maxillæ strongly hooked; hind tarsi short, joints triangular, moderately densely hairy .. .. *Lipoclita.*

C^3. Clypeus differently shaped in both sexes.

Basal joint of hind tibiæ longer than the second, sharply spinose on each side.

a^2. Base of prothorax arcuate above the scutellum.

Upper maxillary lobe with two inner sharp teeth; elytra costulate.. .. .. *Hypselogenia.*

a^1. Base of prothorax hardly emarginate above the scutellum.

Upper maxillary lobe bluntly bifid; elytra noncostate .. .. *Goliathus.*

C^2. Clypeus similar in both sexes, quadrate, outer angles sharp.

Basal joint of hind tibiæ not longer than the second, angular outwardly.

Base of prothorax hardly sinuate above the scutellum; upper maxillary lobe inermous, last joint of palpi long, cylindrical, truncate at tip .. *Hæmatonotus.*

C^1. Clypeus very sharply acuminate towards the apex and incised there.

Antennal club of ♂ shorter than the pedicel, and anterior tibiæ uni-dentate in the ♂, bi-dentate in the ♀ .. .. *Phoxomela.*

A^1. Basal joint of hind tarsi spinose outwardly in the ♀ only. Body less massive, suture raised and sub-carinate in the apical part.

Base of prothorax straight above the scutellum.

Clypeus elongate-ovate, deeply emarginate in front; antennal club of ♂ as long as the pedicel.

Body slightly convex .. .. *Micrelaphinis.*

Body depressed .. .. *Dulcinea.*

Clypeus ampliate-ovate, antennal club of ♂ not as long as the pedicel.

Body massive .. .. *Atrichelaphinis.*

B^1. Anterior margin of prothorax not angular nor sub-dentate in the centre.

a^2. Intermediate tibiæ uni-spinose on the upper side.

b^1. Elytra bi- or pluri-costate.

Clypeus quadrate, outer angles sharp, fore margin reflexed, simple.

c^4. Inner lobe of maxillæ simple, upper lobe with a bifid hamate tooth.

Prothorax strongly arcuate above the scutellum; elytra pluri-costate .. .. *Tetragonorhina.*

c^3. Inner lobe of maxillæ simple, upper lobe with two superposed teeth.

Clypeus attenuate in front; elytra uni-costate .. *Psacadoptera.*

c^2. Inner lobe of maxillæ dentate, upper lobe with two teeth.

Clypeus bi- or quadri-dentate in front .. .. .. *Anoplochilus.*

Clypeus sub-parallel, simple in front; body very densely villose .. .. *Sisyraphora.*

Clypeus rounded laterally in front; prothorax densely villose .. .. *Goraqua.*

a^1. Intermediate tibiæ bi-spinose on the upper side.

b^2. Elytra with the humeral callus continued as a costa, obliterated past the median part.

c^1. Maxillary lobes inermous.

Clypeus sub-parallel, deeply emarginate in front.. *Trichostetha.*

b^1. Elytra normally costulate.

Clypeus attenuate in front, the margin bi- or quadri-dentate .. .. *Odontorrhina.*

Gen. XIPHOSCELIS, Burmeister,
Handb. d. Entomol., iii., 1842, p. 613.

Mentum sub-parallel, contracted at the ligular part which is a little narrowed and one-third the length of the mentum, sub-truncate at apex but slightly sinuate in the centre, the labial palpi are inserted at the very apex of the lateral part; maxillæ narrow, mando straight, not ciliate, galea sub-quadrate, surmounted by numerous bristly hairs; last joint of maxillary palps sub-cylindrical and similar in shape to the labial one; clypeus strongly contracted laterally at the base, not attenuate in front, deeply emarginate with the outer angles

rounded; antennal club shorter than the whole pedicel in both sexes; prothorax diagonally narrowed laterally from a third of the length to the apical part, straight behind with the outer angles of the base broadly rounded, the latter is very little wider than the anterior part, and not sinuate; scutellum very long and very sharply acuminate; elytra considerably wider at the base than the prothorax, and with the metathoracic epimera bulging out most conspicuously in both sexes, the outer margin is plainly sinuate above the hind coxæ which are standing out conspicuously in both sexes; the pro-pygidium is very wide, the basal part alone is covered by the elytra, and the apical edge overhangs the triangular pygidium; the abdomen is somewhat compressed laterally owing to the great development of the hind thighs, and this is especially the case in the ♂, but it is also noticeable in the ♀; the four anterior legs are moderately slender, the fore tibiæ tri-dentate with the apical tooth situated at a great distance from the second and third; the intermediate and hind tibiæ have a plain tooth on the upper edge; the outer terminal part of the intermediate is produced into a bi-dentate process and the lower spur into a long mucro-like spine in both sexes; the hind thighs are very swollen in both sexes, especially in the ♂ the hind tibiæ of which are ending in a strongly curved, massive mucro, only one-third shorter than the whole tibia, and the two apical spurs are very long; in the ♀ the inner apical angle of the hind tibiæ is somewhat developed, but not mucronate, and the spurs are compressed and blunted at apex.

This genus includes one species which is one of the most singular among South African Cetoninæ. I suspected it to be termitobious, and Dr. Hans Brauns has ascertained it to be the case.

The genus would seem to be purely South African, and to belong to the Karrooid fauna.

XIPHOSCELIS GARIEPINA, ♀, Gory and Perch.,
Monogr. Cét., 1833, p. 262, *nec* pl. 50, fig. 3;
Lacord. Génér. Coléopt. Atlas, pl. 38, fig. 3, ♂.

schuckardi, ♂, Burm., Handb. d. Entom., iii., p. 614.

Black, with a faint tinge of piceous; antennæ piceous, legs reddish brown; head and clypeus covered with rough punctures, the latter is a little pubescent, and the pubescence is black; ocular canthus hairy; prothorax covered with broad, cicatricose punctures bearing each a black hair, the outer margin has a fringe of longer hairs; scutellum very long and very sharp at tip, sub-carinate longitudinally in the centre; elytra almost half as broad again at the

base as the prothorax, the humeral callus is greatly developed, and the metathoracic epimera are very large and bulging, they are somewhat depressed along the scutellum which is strongly sunken, and fairly plane on the dorsal part, but slanting laterally from the slightly diagonal costule that runs from the humeral angle to the posterior part where it becomes a greatly elongated callus, the dorsal part is plainly striate, with the striæ faintly punctate, and the suture, as well as the first four dorsal intervals, are plainly sub-tectiform, while on the sides the striæ are very distinctly punctured, but the intervals are plane; all the punctures bear a black bristle; the under side and legs are superficially punctured, each puncture is setigerous, the setæ on the legs and breast being the longest.

Length 13½–17 mm.; width 7½–9 mm.

Hab. Cape Colony (Fraserburg, Beaufort West, Willowmore).

Schaum states (Ann. Soc. Ent. Fr., 1849, p. 284) that *Cetonia gariepina*, Gory and Perch., is identical with *Xiphoscelis schuckardi*, Burm. It is very plain, however, that the figure given in Gory and Percheron's monograph has nothing to do with the latter species, and that in all probability it is a small female of *Rhinocæta cornuta*. Schaum admits that the figure is very faulty ("la figure de ces auteurs est cependant peu reconnaissable"); he might have added that the description was altogether misleading. I strongly suspect that Gory and Percheron's example seen by Schaum was not the one from which the description of these authors was made.

Gen. RHINOCÆTA, Burmeister,
Handb. d. Entomol., iii., 1842, p. 612.

Mentum sub-parallel, fused with the ligular part which is rounded laterally and deeply sinuate or incised at apex (*sanguinipes*), labial palpi inserted laterally near the apex (*cornuta*), last joint sub-cylindrical, but thicker at base than at apex where it is somewhat truncate; maxillæ robust, inermous, galea or upper lobe short, horny, triangular, set outwardly with penicillate hairs; clypeus incised laterally at base, sub-parallel, deeply emarginate with the angles rounded, and somewhat concave in front; antennal club ovate and not longer than the pedicel in either sex; prothorax broader than long by one-third, ampliated laterally from the apex to the base which is broadly rounded and only slightly sinuate above the very long and very acute scutellum; elytra slightly narrowed behind, moderately plane and more or less distinctly bi-costate on each side; pygidium broader than long, vertical; legs very robust, especially the thighs, anterior tibiæ strongly tri-dentate; inter-

mediate tibiæ ending in two long spines nearly as long as the apical spurs, posterior ones broadly dilated at apex and deeply scooped inwardly, the spurs are robust and compressed in both sexes, and blunt at apex in the female, both tibiæ are strongly uni-carinate outwardly, and the tarsi are short and numerously bristly underneath; mesosternum extremely small, not excavate, mesothoracic episterna very large; metasternum sending a small, bluntly triangular process between the median coxæ.

This genus seems to be restricted to the Karrooid fauna. It comprises two species which will prove probably to be coprophagous, as I found them alive, and also dead in or near cattle kraals. They fly at night. They may, however, prove also to be living in the heaps of excrements of termitaria. That they are burrowing insects is well proven by their very robust legs and powerful hind spurs.

Key to the Species.

Black, with a very broad, reddish-brown band along the outer margin of the prothorax; anterior part of prothorax with a small elevation in both sexes .. .. *sanguinipes.*

Black; anterior part of prothorax excavate or not in the ♂, but always with a distinct tubercle .. .. *cornuta.*

RHINOCÆTA SANGUINIPES, Gory and Perch.,
Monogr. Cét., 1839, p. 254, pl. 48, fig. 2;
MacLeay, Illustr. Zool. Afric., iii., p. 43.

Piceous-black on the upper side but with the sides of the prothorax and occasionally the centre sanguineous; under side and legs chestnut-red or chestnut-brown, but occasionally the whole body is quite black; the head is also sometimes rufescent; antennæ rufescent; clypeus deeply sinuate in front in both sexes, sparsely punctate like the head, which is clothed with a not very dense fulvous pubescence; prothorax very little convex, ampliated laterally from the apex to the rounded outer part of the base, glabrous on the upper side but having a fringe of rufo-fulvous bristly hairs along the outer margin and also a few setulose ones in the supra-marginal punctures, the anterior margin has a small, tubercle-like prominence in the centre in both sexes; the surface is deeply punctate, the punctures are more numerous and much more scabrose on the sides; scutellum very long, very sharp at apex, deeply punctate, each puncture bearing a small, fulvous hair; elytra elongated, slightly narrowed behind, plane or nearly so, with the humeral callus not strongly pronounced, there are on each side two sub-sinuate discoidal costules reaching the hind callus, and the suture is

carinate only at the apical part; propygidium and pygidium rufescent, the former pubescent, the other glabrous and punctulate; abdomen and pectus sparsely hairy, anterior and intermediate femora clothed with a long, fulvous pubescence.

Length 20–23 mm.; width $10\frac{1}{2}$–$13\frac{1}{2}$ mm.

Hab. Cape Colony (Worcester, Somerset East, Humansdorp, Fraserburg, Cape Town).

RHINOCÆTA CORNUTA, Fab.,
Spec. Ins. Append., p. 497;
Gory and Perch., Monogr. Cét., p. 252, pl. 48, fig. 2.

arcas, Oliv., Ent., i., 3, p. 44, pl. 9, fig. 83.
cornigera, Lin., Ed. Gmel., i., 4, p. 1579.
hispido-lugubris, Voet., Col., i., p. 25, pl. 5, fig. 38.
armata, Boh., Ofv. Vet. Ak. Forh., 1860, p. 17.
? minor, Kraatz, Deutsch. Ent. Zeit., 27, 1883, p. 390.
? gariepina, Gor. and Perch., Mon. Cet., p. 262, pl. 50, fig. 3.

Male: Black, not very shiny, antennæ black, but occasionally flavescent; clypeus of the same shape as in the preceding species, but much more deeply incised in front, and with the anterior margin more reflexed, the head is sparsely pubescent, the pubescence being flavous, the ocular canthus is also pubescent; prothorax ampliate rounded laterally in the anterior part only, more parallel behind, and less broadly rounded at the base which is only very slightly sinuate above the scutellum, there is often a strong sub-vertical depression in the anterior part of the disk, and the anterior margin bears a distinct median tubercle, but this depression does either not exist in small developed examples, or is hardly noticeable, but the tubercle is always conspicuous, the whole disk is covered with very closely set and very briefly setigerous cicatricose scabrose punctures which are wider on the sides than in the median part; scutellum closely punctate; elytra more attenuate behind than in *R. sanguinipes*, and having also two discoidal costules which disappear before reaching the apical callus in large examples, but not in the small ones, the surface is covered with a network of cicatricose punctures, and in well-preserved examples are seen rows of moderately remote, short, light fulvous bristly hairs.

This species varies much in size. As I have already stated, it is in male examples having attained a great development that the sub-vertical or sloping impression in the anterior part of the prothorax is to be found. But I have ascertained by my examination of the genital organs of the ♂, that *R. armata*, Boh., of which I saw

the type, is merely the small development of *R. cornuta*, and although I know *R. minor*, Kraatz, from description only, I doubt not that it is the same insect as Boheman's. The identity of *armata* and *cornuta* is also corroborated by the shape of the ligula, which is identical for the two, and is much less deeply emarginate than in *R. sanguinipes*.

Length ♂ 13–20 mm.; width 8–12 mm. Length ♀ 16–23 mm.; width 9½–13½ mm.

Hab. Cape Colony (Humansdorp, Graaff-Reinet, Cradock, Montagu, Worcester, Kimberley); Southern Rhodesia (Bulawayo); Damaraland (Nolagi), *teste* Boheman.

LIPOCLITA, n. gen.

Mentum elongated, sub-parallel, but broader at apex than at base, fused with the ligula, depressed in the anterior part of the outer face, sinuate at apex; labial palps short, sub-lateral, the ultimate joint short, obliquely truncate at tip; maxillæ somewhat robust, inner lobe inermous, moderately ciliate inwardly at tip, upper lobe or galea strongly hooked, slightly bifid at tip, and bearing on the outer margin a thick pencil of hairs; maxillary palps short, last joint cylindrical, truncate at tip like the ultimate labial one, the truncate part slightly oblique; clypeus (♀) sub-parallel, emarginate in the centre in front, head simple; prothorax strongly narrowed in front, and slightly sinuate laterally in the post-median part; moderately arcuate above the scutellum which is long and very acute; elytra somewhat short, twice the length of the prothorax; mesosternal process somewhat strongly projecting but blunt at tip; anterior tibiæ tri-dentate outwardly, all the tarsi short, the two basal ones of the hind legs strongly triangular; hind spurs thickened in the ♀.

The only species included in this genus, and of which I know the female only, is very remarkable owing to the short cylindrical terminal joints of both the labial and maxillary palps, which are truncate at apex. Owing to the short, somewhat broadly triangular basal joints of the hind tarsi, as well as the thickened hind spurs of the female, it is more or less connected with *Rhinocæta*, but the diet probably differs from that of the latter, because the galea is short, subquadrate, and simple, instead of being strongly hooked and very sharply toothed inwardly, as in *L. limbaticollis*.

LIPOCLITA LIMBATICOLLIS, n. sp.

Female: Piceous black, with the elytra turning to piceous red or dark chestnut-brown; club of antennæ flavous; prothorax with a

lateral moderately narrow yellowish band; head deeply and somewhat closely punctate, clypeus sub-carinate laterally; antennal club shorter than the pedicel; prothorax very broad at the base, slightly arcuate there on each side, and sinuate above the scutellum, sub-diagonally narrowed laterally in the anterior part, sinuate at about the middle, covered with deep, irregular, and moderately closely set punctures; scutellum long and sharp at tip, punctulate at the base, and with an impressed median line at apex; elytra somewhat short, and with the mesothoracic epimera strongly developed, sinuate laterally, somewhat convex in the posterior part, weakly bi-costulate on each side in the dorsal part, the surface is covered with shallow, irregularly distributed, sub-cicatricose punctures; pygidium slightly depressed on each side towards the apex, faintly punctulate, and having two somewhat transversely elongate white patches; under side briefly pilose on the sides of the pro- and meso-sternum and on the thighs.

Length 18 mm.; width 10½ mm.

Hab. Cape Colony (Vaal River).

Gen. HYPSELOGENIA, Burm.,
Gen. Insect., i., 1846, No. 40.

Mentum slightly longer than broad, moderately ampliate rounded laterally, moderately constricted there near the ligular part the narrowed anterior part of which is emarginate in the centre with the angles well rounded, the outer part of the mentum is convex instead of being concave as in *Goliathus*, and is provided at the base with a vertical, sub-bifid process; maxillæ robust at the base, but with the densely hairy upper lobe somewhat slender and sharply bi-dentate inwardly, inner lobe simple; head concave in both sexes, very highly carinate laterally on the upper side with the anterior part produced into a highly reflexed laminate horn trifid at apex in the male, whereas in the female the anterior margin is highly reflexed with the outer angles sharply angular and the median part highly carinate and sharply pointed in the centre; canthus of eyes sharply angular; antennal club shorter than the pedicel in either sex; prothorax highly roofed in the anterior part above the hollow frontal part, broader than long, ampliate rounded laterally in the middle, basal angles distinct, base slightly sinuate on each side and moderately arcuate above the scutellum which is very long and somewhat sharply acuminate; elytra short, massive, very little attenuate behind, weakly bi-costate; anterior tibiæ sharply tri-dentate outwardly in both sexes; intermediate and posterior

uni-dentate on the upper edge; tarsi moderately long, the basal joints of the hind ones almost spinose on each side in both sexes; under side not densely pubescent on the pectus; sternal process horizontal, moderately long, acuminate, marginate all round and grooved in the centre nearly to the apex.

The shape of the mentum and also the massive body connect the species included in this genus with *Goliathus*. It is, however, the only true Cetonid known to me in which the mentum is provided at the base with a vertical process; in the *Cremastochilini* this is a common enough feature. The South African species has a very wide range in South Africa, and another species is recorded from Eastern Africa.

Hypselogenia geotrupina, Billb.

Schönh., Syn. Ins., i., 3, p. 461.

albopunctata, Gory and Perch., Monog. Cet., p. 122, pl. 17, fig. 5.
billbergi, Thoms., Typi Cetonid., 1878, p. 7.
concava, Gory and Perch., Monogr. p. 121, pl. 17, fig. 4.
goryi, J. Thoms., Typi Ceton., 1878, p. 8.

Piceous, moderately shiny, occasionally spotless or without bands on the prothorax (*concava*); spotless but with a narrow flavescent marginal band on the prothorax; with a narrow marginal band on the prothorax and with scattered flavescent macules on the elytra and a band of the same colour in the posterior part (*geotrupina*); or with the elytra similarly maculated but with a broad marginal band and a discoidal narrower one on each side of the prothorax (*billbergi*).

Male: Head very concave and deeply punctured, the reflexed horn is usually sharply tri-dentate at apex, but occasionally also the two outer teeth are blunted laterally, and the median one is only moderately sharp; prothorax with a very indistinct prominence in the centre of the anterior margin, moderately closely punctate but with the median part of the disk usually smooth; scutellum smooth; elytra indistinctly bi-costate on each side and having series of punctures on the dorsal part, but on the deflexed sides these punctures are not seriate; pygidium with two flavescent macules or without any; abdomen impunctate; pectus very deeply and closely punctate, briefly pubescent, the pubescence black.

Female: Clypeus deeply incised in front with the angles sharply reflexed, or with the anterior part broadly emarginate (*goryi*) and having in the centre a carinate tubercle; the prothorax has a blunt, hook-like tubercle in the anterior part above the concave frontal

part, and it is more closely punctate in the anterior part than in the male, but in other respects it is similar.

The spotless variety is rarer than the spotted and banded ones but occurs also with it, and it is impossible to separate any of the varieties above-mentioned as they gradually merge into one another.

Length (horn excl.) 17–24 mm.; width 11–14 mm.

Hab. The whole of South Africa except the extreme end of the South-western districts in the Cape Colony.

Nothing is known of the habits of this species. It feeds on *Acacia* gum, according to Mr. G. A. K. Marshall, but is found also "flying round manure heaps" or near cattle kraals in the Cape Colony, somewhat in the manner of *Rhinocæta*.

Gen. GOLIATHUS, Lamark.,
Syst. Anim. s. vert. 1801, p. 209.

Mentum broadly ampliate rounded and transversely truncate in the anterior part at the base of the deep cavity for the insertion of the palps, the fused ligular part greatly narrowed, being across less than half the width of the mentum, and with the apex of the cavity reaching nearly the rounded angle of the anterior part which is broadly and very deeply incised; maxillæ robust, inner lobe projecting and truncate at tip, very densely ciliate inwardly, upper lobe slightly incurved, and with two superposed blunt teeth, densely penicillate at the top and outwardly; clypeus carinate laterally on the upper side, parallel with the anterior angles projecting and the anterior part truncate and produced in the middle into a short, narrow process reflexed and furcate at the tip in the ♂ whereas in the ♀ the outer angles are rounded and the median part is projecting and slightly sinuate; antennal club not longer than the pedicel in either sex; prothorax with a sharp median tubercle in the anterior part in the ♀, diagonally ampliated laterally from the anterior part to the middle, and only slightly attenuated thence to the base the outer angles of which are not rounded, base semicircular and slightly emarginate above the scutellum which is long, sharp, and grooved laterally, especially in the ♀; elytra elongated, attenuate behind, not costate, the suture is only slightly raised behind and weakly acuminate at apex; legs bi- or tri-dentate outwardly according to the sexes, spinose on the upper side of the intermediate tibiæ in the ♀ only, tarsi long, the two basal joints of the posterior ones spinose inwardly and outwardly, the spine more pronounced in the ♀ than in the ♂, in which sex the first joint is slightly longer than the second, whereas they are of

equal length in the ♀ ; sternal process long, horizontal, acuminate at apex; under side sparingly hairy; inner part of intermediate and posterior tibiæ fringed with very dense flavescent or black hairs.

The genus is represented in Western and East Central Africa, and includes species attaining the largest size in the Order Coleoptera.

GOLIATHUS ALBOSIGNATUS, Bohem.,
Insect. Caffr., ii., 1857, p. 10.

kirki, Gray, Ann. Nat. Hist., 3 Ser. iv., 1864, p. 311; Proc. Zoolog. Soc., 1864, p. 34, pl. 5.

Male: Black head and clypeus coated with white in the upper part, but still distinctly carinate longitudinally, the deflexed sides and the furcate process black; antennæ piceous; prothorax with a broad lateral marginal white band enclosing in the anterior part an elongated patch of the black background, a narrow discoidal one on each side, and a narrower one in the central part, all these bands reach from apex to base; the black parts are quite opaque, and the sub-velvety coating hides the sculpture; scutellum with a median white line and a broader lateral one filling the lateral groove; elytra broadly white laterally and behind with the black discoidal part including both the anterior and posterior callus interrupted by transverse, sinuose, somewhat narrow white bands; the sculpture is hidden by the black and white coating; pygidium black, fringed with black or more or less light fulvescent, fairly long hairs; abdomen glabrous, pectus briefly pubescent; abdomen, pectus, and femora closely punctate; median part of metasternum smooth, grooved to a short distance from the apex, where there is no trace of suture.

Female: Head very rugose, black with only the frontal part white, and carinate longitudinally in the frontal part only; prothorax punctate foveate, impressed longitudinally in the centre of the anterior part, the impression ending in a sharp tubercle in the anterior margin, and having a narrow white line in the centre reaching from the apex to the middle, a shorter discoidal one beginning at the apex, and a broad marginal one enclosing a long band of the black background; the disposition of the white sinuate bands on the black, not opaque background is the same as in the male, but the punctures on the surface are quite distinct; under side as in the male but more deeply punctured, and with the sternal process more triangularly acute at the tip.

I am informed that in *G. kirki*, the pubescence on the margin of the pygidium, and on the inner part of the legs is fulvescent

instead of being black. This seems to me to be too trivial a distinction; moreover, Boheman, in his description of the unique specimen collected by Wahlberg, does not mention the colour of these hairs, which, for aught we know, might have been of that colour.

Length (horn excluded) 36 mm.

Hab. Transvaal (Rustenburg, Waterberg); Southern Rhodesia (Salisbury); Mazoe (var. *Kirki*).

This species feeds "only on the gum exuding from certain species of *Acacia*." (G. A. K. Marshall.)

Gen. HÆMATONOTUS, Kraatz,
Entom. Monatsbl., ii., 1880, p. 20.

Mentum long, fused with the ligula, very slightly sinuate laterally, arcuate and not deeply incised in the centre in front, labial palps somewhat long, especially the apical one which is cylindrical but incurved, and truncate at tip; maxillæ somewhat robust, inner lobe straight but sharp at apex, upper lobe very sharply triangular with the outer margin penicillate, maxillary palps long, the last one cylindrical, truncate at tip, and as long as the three preceding ones taken together; clypeus longer than the head, contracted laterally at base, straight, nearly as broad at the apex as long, and with the anterior margin strongly reflexed; antennal club as long as the pedicel in both sexes; prothorax somewhat narrowed in the anterior part and gradually ampliated to the base which is very slightly arcuate and almost straight above the scutellum, the anterior margin bears a small median tubercle in both sexes; scutellum long, sharply acuminate; elytra moderately elongate, twice the length of the prothorax, attenuate behind; pygidium declivous, slightly convex; mesothoracic epimera very bulging; mesosternal process truncate; legs short, anterior tibiæ uni-dentate in the male, bi-dentate in the female; hind tarsi short, the four basal ones triangular; intermediate and posterior tibiæ weakly dentate on the upper margin.

Hæmatonotus turbidus, Boh.,
Öfvers af. K. Vet. Akad., Förh, 1860, p. 120.

fritschi, Kraatz, Entomol. Monatsbl., ii., 1880, p. 20.; Deutsch. Entom. Zeitschr., 1880, pl. 1, fig. 8.

minor, Kraatz, Deutsch. Entom. Zeitschr., 1896, p. 373.

lugens, Jans., Cist. Entomol., ii., 1882, p. 603.

pictus, Pér., Trans. S. Afric. Phil. Soc., iii., 1885, p. 96, pl. 1, fig. 7.

The colouration of this species varies greatly. The type is entirely

black, with a whitish outer marginal prothoracic band (*turbidus*, *lugens*), without this outer marginal prothoracic band (*minor*), or reddish with two discoidal black prothoracic bands reaching from the base to about the middle, and the elytra immaculate or with an evanescent, infuscate, transverse band in the posterior part; but it is oftener black with the prothorax and elytra brick-red and opaque; in the median part of the base there is a black patch which is sometimes nearly obliterated, but which invades occasionally the greatest part of the disk, and on each side there is a marginal, narrow white band; scutellum partly red and black, or totally black; elytra with two arcuate irregular sinuate patches, especially the posterior one on each side; pygidium with two white patches coalescing sometimes along the apical margin; upper lateral part of abdominal segments maculated with white; frontal part and also the concavity of the clypeus clothed with a flavescent pubescence; frontal part densely punctate; prothorax with a very distinct tubercle in the centre of the anterior part, and clothed with a brief flavescent pubescence, it is very closely punctate; scutellum sub-cicatricose punctate; elytra closely punctate, bi-costate on each side; pygidium reddish and having on each side a broad white patch extending sometimes along the base; sides of abdomen sparely, of pectus densely pubescent; abdominal segments and epimera maculated with white, legs also pubescent, basal joint of hind tarsi longer and wider than the second, sharply angular outwardly; antennal club flavous.

Length $15\frac{1}{4}$–$16\frac{1}{2}$ mm.; width $8\frac{1}{2}$–$9\frac{1}{2}$ mm.

Hab. Transvaal (Pretoria, Rustenburg, Pietersburg); Bechuanaland (Ramoutsa); Southern Rhodesia (Hamyani River, Umcheki River); N'Gamiland, *teste* Boheman; Ovampoland.

Gen. PHOXOMELA, Sch.,
Ann. Soc. Ent. d. Franc., 1844, p. 407.

This genus, which contains one species only, differs from *Micrelaphinis* in the shape of the clypeus, which is very sharply acuminate laterally in the anterior part, and very deeply incised there; the palps cavity reach almost the centre of the outer face which thus looks as if it were carinate; the other chief differences are that the prothorax is plainly arcuate above the scutellum; the anterior tibiæ are dentate at apex only and sinuate above it in the ♂, bi-dentate in the ♀; the plane sternal process projects slightly more than in *Micrelaphinis*, is broader, and only very weakly arcuate at tip; the elytra are costulate, and shiny; the basal joint of the hind tarsi are very sharply spinose outwardly in both sexes.

The genus includes only one species which does not seem to have been met beyond the South African area.

PHOXOMELA UMBROSA, Gory and Perch,
Monogr. d. Cét., p. 282, pl. 55, fig. 1.

abrupta, Sch., Ann. Fr., 1844, p. 407 ; do. 1849, p. 265.
alessandrini, Bertol., Ins. Mozamb. Dissert., i., p. 18, pl. 1, fig. 5.

Black, shiny; prothorax with a lateral, marginal, flavescent white band slightly notched inwardly by the lateral fossule ; elytra with nine flavescent white macules, the two apical ones coalesce along one posterior margin (*umbrosa*) ; or, (*alessandrini*) all the macules are orange-yellow, and those on the deflexed sides coalesce along the outer margin so as to form often a longitudinal band emitting a small ramus towards the median part; pygidium with two superposed white macules on each side of the centre ; under side immaculate, but the hind femora have a small white patch on the outer side ; clypeus closely punctulate, and having occasionally a white patch in the centre ; frontal part clothed with a moderately dense light fulvescent pubescence ; prothorax not very closely punctate ; scutellum without punctures ; elytra bi-costulate on each side, but the costules are obliterated in the anterior and the posterior parts, the intervals are plainly punctate till about the middle, and very closely aciculate thence to the apex in the male, less plainly so in the female, in which the costules are also less well defined ; pygidium finely aciculate ; abdominal segments with a lateral row of punctures ; pectus aciculate and sparingly hairy.

Length 11–12 mm. ; width 6–7 mm.

The two forms, *umbrosa* and *alessandrini*, are found together. I have ascertained that the colour variation occurs in both the sexes.

Hab. Natal (Durban, Frere, Zululand), Transvaal (Pretoria, Zoutpansberg, Lydenburg, Potchefstroom, Waterberg), Rhodesia (Bulawayo, Mount Chirinda).

MICRELAPHINIS, Schoch.,
Mith. Schweiz. Entom. Gesel., 1896, p. 331.

The characters differentiating this new genus from *Elaphinis* are the shape of the clypeus which is equally oblong-ovate but deeply incised at apex, with the outer angles sharp, and the narrower and much more elongated scutellum ; in the ♂ the antennal club is as long or longer than the pedicel ; the facies is less robust, although one species (*irrorata*) is a form of transition. In all the species included in this genus the basal tarsal joint of the very robust hind legs is

sharply spinose outwardly, and the lower spur broad in the female. The intervals between the suture and the dorsal costæ of the elytra are seriate punctate.

In some species the livery of the ♀ differs considerably from that of the ♂, and even in the ♂ it varies greatly.

Key to the Species.

A³. Upper side with an opaque coating in both sexes.

B². Anterior tibiæ bi-dentate outwardly in both sexes.
Sides of prothorax and of elytra with wide, almost non-interrupted bands; body robust .. .. *irrorata.*
Sides of prothorax and of elytra with white macules in both sexes; body less robust.. .. .. *pumila.*

A². Upper side with an opaque coating in the ♂, shiny in the ♀. Prothorax and elytra with white seriate macules in the ♂; æneo-rufescent, and immaculate with the suture of the elytra black, the posterior part only black, or totally black in the ♀.. .. .. *delagoensis.*

B¹. Anterior tibiæ of ♂ uni-dentate, bi-dentate in the ♀. Prothorax and elytra multi-maculate with white in the ♂; prothorax and elytra black, the latter immaculate or with a few white dots in the ♀ .. .. *nigritula.*

A¹. Upper side shiny in both sexes.

B². Anterior tibiæ bi-dentate in both sexes.
Prothorax with a lateral white margin and a discoidal row of white spots; elytra with four rows of white dots on each .. .. *sheppardi.*
Prothorax with a broad marginal white band; elytra with four large white macules on each side .. .. .. var. *plagiata.*
Prothorax and pygidium red, prothorax and elytra immaculate .. .. var. *collaris.*

MICRELAPHINIS IRRORATA, Fabr.,
Ent. Syst. Suppl., p. 130.

serva, Gory and Perch., Mon., p. 273, pl. 53, fig. 3.
aerifera, McLeay, Ill. Zool. Afric., iii., 1849, p. 47.
bella, McLeay, loc. cit., p. 47.
mumismatica, McLeay, loc. cit., p. 47.
puma, McLeay, loc. cit., p. 47.
moesta, Gory and Perch., Monogr., p. 292, pl. 56, fig. 7.

The colouring of this species is very variable.

Bronze rufescent, or greenish bronze coated on the upper side with an opaque indumentum hiding completely or nearly so the

sculpture, and adorned with white bands or macules which often disappear or are incomplete without having been rubbed off; the background of the elytra is maculated with fuscous on the discoidal part, and also on the deflexed part when the white coating does not predominate there. The white bands are more conspicuous in the male, while in the female there are only a few small macules on the prothorax, and hardly any on the sides of the elytra; in many males the elytra are often without bands or spots, but not so the prothorax which bears always strong traces of a lateral white band. Clypeus lightly punctulate, margins slightly raised, head sparsely hairy in the posterior part; prothorax dull green, not closely punctate, and with the punctures very shallow, it has on each side a broad band of cretaceous white coating, and in the discoidal part are a few minute dots of the same substance; scutellum impunctate; elytra sub-testaceous with the humeral part very bulging, plainly bi-costate with the suture equally raised in the posterior part and weakly acuminate at apex; the whole of the deflexed sides and the posterior part are covered with a cretaceous coating as well as the second costal interval and the hind part of the first, but there is always a large spot of the background left uncovered round the posterior callus, the costæ are not free from the coating; pygidium either completely covered with a white coating or only maculated with the same; abdominal segments each with a broad white band on each side, pectus also white; in the female this coating is often partly or even completely obliterated; pectus densely hairy; anterior tibiæ bi-dentate in both sexes, but having an upper sinuation in the female, the basal tarsal joint of the hind legs is strongly spinose outwardly.

Length 10½–12½ mm.; width 6–7 mm.

Hab. Natal, Transvaal, Cape Colony (eastern part).

MICRELAPHINIS ? PUMILA, Bohem.,
Insect Caffrar., ii., 1857, p. 40.

Smaller than the preceding species, but otherwise so similar in colouration and shape that had I not seen a very long series I would have taken it for a dwarfish variety of it. The shape of the genital armature of the male is slightly different. The colour is reddish bronze, the base of the clypeus is maculated with white; the opaque prothorax has a dull greenish tinge, a lateral white band, and more or less coalescent white patches on the disk; very often there is a small white spot on each side of the base of the scutellum; the elytra are plainly bi-costate, the three dorsal intervals have each

a series of white spots, and the deflexed part two rows of white macules, but as often as not most of these spots and macules are partly or almost completely obliterated, and in that case irregular fuscous macules are easily discernible; pygidium and under side as in the preceding species. The antennal club of the ♂ is very long.

Length $8\frac{1}{2}$–$9\frac{1}{2}$ mm.; width $4\frac{3}{4}$–$5\frac{1}{4}$ mm.

Hab. Natal (Durban, Umvoti, Maritzburg, Zululand).

MICRELAPHINIS DELAGOENSIS, Schoch.,
Mith. Schw. Entom. Gesels., 1894, p. 188.

gracilis, Schoch., loc. cit., 1896, p. 331.

The colour of this species is most variable, the male is opaque on the upper side and the female shiny.

Type. Male: Head, sub-coppery, shiny; prothorax, scutellum greenish, elytra greenish fuscous with a faint tinge of rufescent in the basal part, or light sienna-brown numerously intermixed with small fuscous patches, the prothorax and the intervals of the elytra are maculated with numerous small white dots, and there are two spots on the scutellum; the pygidium is broadly maculated with flavescent white, and so are the sides of the pectus; the abdominal segments have either a lateral macule or an interrupted white band.

Type. Female: Head and prothorax dark bronze or bronze-green, the latter is either immaculate or spotted with white; the elytra are black and are numerously dotted with white; the pygidium has two or four broad lateral macules; the under side has only a few white dots.

Var. *a*. Male and Female: Prothorax and elytra dark green; elytra rufescent for about one-third of the length, the rufescent part extending from the first interval to the outer margin, and black along the suture and the whole of the remaining surface; pygidium and under side not maculated with white.

Var. *b*. Male: Prothorax and scutellum opaque dull green, numerously or moderately sparingly sprinkled with white dots; elytra light sienna-brown unspeckled with white, or with an outer marginal row of remote minute white spots and a few small fuscous macules mixed with a few white spots; pygidium and under side maculated with white.

Female: Prothorax and scutellum bronze-red or bronze-green, unspotted, elytra light sienna, with a metallic tinge, the suture concolorous, or occasionally fuscous; pygidium with two broad, white patches, under side almost unspotted.

This variety *b* closely approximates *M. pumila*, Boh.

Length 10–10¾ mm.; width 5½–6 mm.

Hab. Mozambique (Rikatla, Lourenço-Marquez).

I have seen Schoch's type of *M. delagoensis*, but not that of *M. gracilis*.

MICRELAPHINIS NIGRITULA, Boh.,
Insect. Caffr., ii., 1857, p. 39.

Male: Black, opaque on the upper side, elytra rufous brown, or black with rufescent basal longitudinal stripes, antennal club longer than the pedicel, and rufescent; head with two white macules, apical margins of the clypeus slightly more reflexed than in the three preceding species; prothorax very slightly arcuate above the scutellum, deeply punctate, and having on each side a plain, uninterrupted white band, and several white spots on the discoidal part; elytra with three dorsal series of white spots and a lateral row of white macules the lower of which is produced as a band rounding the apical part; under side black, shiny, abdominal segments with an upper white macule, the penultimate with two.

Female: More robust than the male, totally black, shiny; elytra with a few somewhat irregular small white dots very variable in number, and occasionally totally absent; pygidium with two small white spots; under side without white spots or macules.

The shape of the genital forceps of the male of this pretty species differs more distinctly from that of the previously described species than the other three do from each other. Boheman described the species from a female example.

Length 10–10½ mm.; width 5–5½ mm.

Hab. Transvaal (Pienaar's River, Pretoria District; Rustenburg, Lydenburg, Zoutpansberg); Southern Rhodesia (Middle Limpopo); Natal (Weenen).

MICRELAPHINIS SHEPPARDI, n. sp.

The colouration of this species varies much.

Type. Male: Black, shiny, but without a metallic sheen in both sexes, and thus differing from the female of *M. delagoensis*, antennæ black, slightly rufescent at apex; prothorax with three or four white macules coalescing oftener than not into a lateral marginal band, on each side of the disk there is a row of three or four white dots, and often a single median central dot; scutellum concolorous; elytra with four series of white dots on each side; pygidium with two sub-transverse white patches; pectus with several white lateral macules, abdominal segments with a white dot each. Head and clypeus evenly closely punctulate; prothorax moderately closely

punctate, the punctures more than superficial, but more scattered and very shallow in the basal part; scutellum impunctate; elytra with the two dorsal costæ smooth but well raised and sub-tectiform, the rounded punctures in the intervals are variolose and deep, those on the deflexed side somewhat shallow and coalescing; pygidium with nearly coalescing sub-variolose punctures; sides of abdomen and of pectus sparsely punctate; pubescence of legs ashy grey.

Length 11 mm.; width 6 mm.

Hab. Mozambique (Beira).

I retain for this species and its varieties the *in litt.* names given by Mr. O. E. Janson.

Var. PLAGIATA.

Male and female: Black, very shiny and with a faint metallic sheen more noticeable in examples which are not quite mature; prothorax with only two large supra-marginal lateral white macules, the hind one being the largest of the two; elytra with three large macules on each side, the first is situated at the sinuation and reaches from the first discoidal costa to the deflexed part, the second is nearly median and reaches the outer margin, the third set near the apical callus is smaller than the other two but is sometimes also reduced to a mere dot, and the juxta-sutural one is triangular; in addition to these well-defined patches there are occasionally a few white dots scattered in the posterior part; pygidium with two broad white patches.

This varietal form differs from the type in the obliteration of some of the dorsal white dots, and the coalescing of others into patches.

Length 11 mm.; width 6 mm.

Hab. Mozambique (Beira).

Var. COLLARIS.

Male: Black, with the prothorax, the pygidium, and the two last abdominal segments red; there are no white markings on the prothorax, nor on the dorsal part of the elytra, but along the lateral and apical margin are a few seriate white dots; the pygidium has no traces of white patches or spot. The sculpture and vestiture is in other respects similar to the type and to the variety *plagiata*.

Length 10–10$\frac{3}{4}$ mm.; width 5$\frac{1}{2}$ mm.

Hab. Mozambique (Beira).

ELAPHINIS LATECOSTATA, Bohem.,
Coleopt. Caffr., ii., 1857, p. 38.

"Ovate, little convex, rufotestaceous, shiny; head æneous; pro-

thorax sparely punctulate and having on the disk two oblique bronze bands connected behind; scutellum bronze, punctulate at the base; elytra closely tessellate with black, finely punctate striate, the striæ geminate; tri-costate on the dorsal part, the costæ broad, little convex, very finely but sparingly punctulate; anterior tibiæ bi-dentate outwardly, the teeth remote. Size and general appearance of *E. irrorata*, differs by the more sparingly punctate prothorax, the æneous scutellum, the finely yet distinctly punctate, striate elytra, and the broader, little convex, dorsal costæ."

This species belongs possibly to the genus *Micrelaphinis*.

DULCINEA, n. gen.

Closely allied in appearance to *Gametis*, and similarly depressed, but differs by the base of the prothorax being straight above the scutellum; the latter is shorter, broader at the base, and more triangular; the elytra are plainly bi-costate on each side; the sternal process is strongly aculeate, and the anterior tibiæ bi-dentate outwardly in both sexes; the basal joint of the hind tibiæ is strongly spinose outwardly.

The only species known to me seems an intermediate form between *Elaphinis* and *Gametis*. Owing to its depressed form the latter, however, belongs to a different division.

Dulcinea levis, Jans.,
Cist. Entomol., ii., 1868, p. 256.

Type. Black, somewhat metallic underneath, opaque on the upper side; the greatest part of the disk of the prothorax is black with a more or less broad flavescent border in front and on the sides but not in the basal part, that discoidal black part is, however, occasionally divided into spots or patches; the elytra are flavo-testaceous and have a long, triangular infuscate patch which seems to be the continuation of the prothoracic discoidal one, and the apex of which reaches the median part of the suture, extreme apical part triangularly black. Clypeus very long, slightly sinuous near the base, deeply and very broadly incised at the apex the margin of which is slightly reflexed; head and prothorax moderately closely punctate, the punctures distinct only in rubbed specimens; elytra plainly sinuate laterally, bi-costate on each side, striate on the dorsal part, striate punctate beyond, suture acuminate at apex; sides of abdomen and of metasternum somewhat roughly punctate; sternal process without suture, projecting somewhat strongly, truncate in front.

Var. *a*. Head and prothorax black, the latter with a fairly well-defined narrow lateral band; at the apex of the triangular basal patch of the elytra is an ill-defined transverse black band and spots.

Var. *b*. Prothorax flavo-testaceous splashed with black macules and a few lateral white spots; elytra also flavo-testaceous, splashed with numerous black macules.

Var. *c*. Black, shiny, prothorax with a narrow, lateral, flavescent band with a few white spots, epimera of the prosternum and hind callus of elytra flavo-rufescent. I take this variety to be the female.

Length 10–11 mm.; width $5\frac{1}{2}$–$6\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Sebakwe; between Limpopo and Zambesi); Nyassaland.

GEN. ATRICHELAPHINIS, Kraatz,
Deutsch. Entomol. Zeitschr., 1898, p. 220.

Buccal organs of *Elaphinis;* clypeus oblongo-ovate. anterior angles rounded, anterior margin roundly incised; antennal club of male nearly as long as the pedicel; prothorax shaped as in *Elaphinis* but quite straight above the scutellum which is also less sharply acuminate than in the last-named genus; elytra bi-costate, the inner costa only moderately raised, the dorsal intervals geminate striate, the striæ normally punctulate; sternal process very short, transversely obtuse; anterior tibiæ bi-dentate in both sexes; tarsi moderately long, basal joint of hind tarsi spinose outwardly in the female only. The shape of the clasps of the male is very different from that of *Elaphinis*.

In general appearance the species included in this genus is very closely allied to those of the genus *Elaphinis*, the distinctive characters consist in the straight base of the prothorax, the bi-dentate fore tibiæ, the spinose basal joint of the hind tibiæ, and specially the normally punctulate dorsal striæ. It plainly unites the first division, or *Goliathites*, to the second or *Cetonites*.

ATRICHELAPHINIS CINEREOBULOSA, De Geer,
Mém. Ins., vii., p. 643.

cinerascens, Fabr., Syst. Eleuth., ii., p. 156; Gory and Perch., Mon., p. 269, pl. 52, fig. 3.

irregularis, Oliv., Ent., i., 6, p. 51, pl. 6, fig. 39.

Metallic dark brown clothed on the upper side by an opaque, ashy violaceous coating, forming on the prothorax a lateral, often inter-

rupted band, and several longitudinal macules on the discoidal part; the scutellum has a lateral band of the same colour; on the elytra this coating invades most of the surface, leaving, however, numerous patches of the background bare; the pygidium is partly or completely covered with the coating which forms on the abdominal segments an upper macule, or a band; head aud clypeus deeply and closely punctate, the former, and also the base of the clypeus, are moderately densely hairy, the latter is somewhat ampliate laterally, and deeply emarginate in the centre; prothorax sparsely punctulate; scutellum impunctate, not very sharp at apex; elytra bi-costulate on each side, the dorsal intervals have each two weakly bi-geminate striæ somewhat indistinctly punctulate, and the suture is very slightly acuminate at apex; propygidium and pygidium transversely plicate and briefly pubescent; abdominal segments sparingly punctate on the upper side; pectus scabrose punctate and somewhat densely but moderately briefly pubescent; legs robust, anterior tibiæ bi-dentate outwardly in both sexes, but with a slight upper sinuation in the female in which the basal tarsal joint of the hind legs is produced at apex in a long, apical spine on the outer side.

Length 11–13½ mm.; width 6¼–7 mm.

Hab. Cape Colony (Graham's Town, Uitenhage, Knysna).

TETRAGONORHINA, Kraatz,

Deutsch. Entom. Zeits., 1896, p. 369.

Mentum parallel, truncate at apex with the angles not rounded; maxillæ robust, inner lobe not densely pubescent inwardly and armed with a strong hamate tooth; upper lobe nearly glabrous on the outer side, and produced into a broadly divergent, bifid, hamate tooth; last joint of palps slender, sub-cylindrical, truncate at tip; clypeus quadrate, slightly broader than long, truncate at apex with the angles acute, the anterior margin is very slightly sinuate and sharply reflexed; antennæ moderately long, the club not longer than the pedicel in the ♂; prothorax attenuate, sinuate laterally in the anterior part almost straight in the posterior with the hind angles broadly rounded, strongly arcuate above the scutellum which is long, sharply acuminate and broadly grooved laterally; elytra moderately attenuate laterally behind, highly bi-costate on each side and with two intervening costules, sparsely maculated with white, and copiously hairy; sternal process short, blunt, projecting slightly beyond the coxæ; anterior tibiæ dentate at apex only and hardly sinuate above it in the male, tri-dentate in the female;

intermediate and posterior obsoletely denticulate on the upper side; tarsi long, basal joint of hind tarsi sub-spinose outwardly.

The shape of the teeth of the maxillæ and also the sub-spinose basal joint of the posterior tarsi certainly closely resemble the genus *Anoplochilus*, but it differs in many other characters. Its nearest ally is *Hæmatonotus*.

TETRAGONORHINA INDUTA, Jans.,
Cist. Entom., ii., 1877, p. 257.

albomaculata, Kraatz, Deuts. Ent. Zeits., 1896, p. 370; Kraatz, loc. cit., 1898, pl. ii., fig. 2.

Black or fuscous black, shiny but covered on the upper side with an upright sub-flavescent pubescence resulting from all the punctures being setigerous; under side densely hairy; clypeus and head very closely punctate, antennæ flavous rufescent; punctures on the prothorax closely set but with the intervals irregular and rugose; scutellum roughly punctate on each side; elytra with the two dorsal costæ highly raised and sub-tectiform, in the first interval there is a costa nearly as much raised in the anterior part as the second dorsal one, but which disappears at about two-thirds of the length, in the second interval there is also a costule much less raised, however, than the second dorsal costa, and the deflexed sides, like the dorsal intervals, are somewhat roughly punctate; on each elytron there are four dorsal white macules—two in the anterior part of the second interval, and two in the posterior of the first—in addition to these there are two marginal ones in the rounded posterior part, and occasionally one on the hind part of the lateral margin; abdominal segments closely punctate; pectus closely shagreened.

Length 11–12 mm.; width 6–7 mm.

Hab. Natal (Weenen); Southern Rhodesia (Salisbury, Mazoe, Umtali). Originally described from Nyassaland; it occurs also in East Central Africa.

GEN. PSACADOPTERA, Kraatz,
Deutsch. Entom. Zeits., 1882, p. 67.

Mentum elongated, sub-parallel, but slightly ampliated towards the apical part, which is somewhat deeply incised in the centre, and the outer angles rounded; palps of the normal shape; maxillæ robust, inner lobe simple, pubescent inwardly, upper lobe with two superposed, sharp, somewhat hooked teeth; clypeus sub-parallel

and carinate laterally but slightly attenuate near the apex the margin of which is sinuate and moderately or highly reflexed; antennal club of male not quite as long as the pedicel; prothorax plainly narrowed laterally in front, sub-trapezoidal from about the median part, plainly arcuate above the scutellum which is sharply triangular, a little longer than broad, and grooved laterally; elytra somewhat broad and short, moderately broadly sinuate laterally, bi-costulate, seriate punctate; pygidium of the normal shape and maculated with white or flavescent, under side with flavescent bands or patches, sternal process projecting beyond the coxæ, broadly and ovately transversely ampliated; pectus and legs pubescent; anterior tibiæ tri-dentate outwardly, the upper tooth short in the male; tarsi somewhat short, the basal joint plainly sub-spinose or spinose outwardly in both sexes; intermediate tibiæ dentate on the upper side.

The genus includes two species which might be taken for varietal forms of each other, but which are greatly separated by the different shape of the genital armature of the male.

Key to the Species.

A². Light testaceous brown on the upper side; each elytron with four discoidal black patches, and seriate white spots.

B². Frontal part glabrous, clypeus highly reflexed in front; prothorax with four black patches .. .. *leucomelana.*

A¹. Light testaceous brown, with four discoidal white spot on each elytron, or totally black on the upper side.

B¹. Frontal part densely pubescent; prothorax with two fuscous longitudinal discoidal bands either entire or interrupted .. .. *simonsi.*

PSACADOPTERA LEUCOMELANA, Gor. and Perch.,
Monogr. d. Cét., p. 202, pl. 36, fig. 6.

Light testaceous brown, sub-opaque and glabrous on the upper side; head glabrous, closely and finely punctate like the clypeus which is plainly attenuate and sinuate laterally towards the apex the margin of which, plainly sinuate in the middle, is strongly reflexed and on that account sub-dentate, on the basal part of the head there are three fuscous macules; prothorax moderately closely punctate, the round punctures being separated from each other by a space nearly double the size of their diameter, in the median discoidal part are four fuscous patches the anterior ones of which are half the size of the others; scutellum impunctate; elytra deeply

seriate punctate, on each of them are four more or less elongated fuscous or white patches astride of, or set close to the second discoidal costa, on these patches there is a white macule, and in addition to these there is a row of somewhat irregularly shaped white macules along the outer and posterior margins, these macules being more or less regularly connected with fuscous ones, the seriate punctures are cicatricose in the apical part; pygidium sub-reticulate strigose, and having four white patches; abdominal segments with cretaceous bands, the band divided into two, sides of abdomen and of pectus cicatricose punctate, especially the latter which is also hardly pubescent.

Length 13–16 mm.; width 7–9½ mm.

Hab. Cape Colony (East London, Kimberley, Transkei); Natal (Maritzburg, Tugela River, Estcourt); Transvaal (Klerksdorp, Rustenburg, Lydenburg, Potchefstroom, Pretoria); British Bechuanaland (Macloutsie); Southern Rhodesia (Bulawayo, Enkeldoorn).

PSADACOPTERA SIMONSI, Jans.,
Cist. Entomol., ii., 1868, p. 263.

bipunctata, Kraatz, Deutsch. Entomol. Zeitschr., 1898, p. 92.
simulatrix, Kraatz, loc. cit., 1882, p. 67.

Var. *velutina*, Péring., Trans. S. Afric. Phil. Soc., iv., 2, 1886, p. 103.

Type. Black, but prothorax, scutellum, elytra, and pygidium light testaceous brown, opaque; head closely punctate, clypeus gradually attenuate towards the apex, only slightly reflexed in front, and not deeply emarginate there, frontal part clothed with a dense fulvous pubescence; prothorax not closely punctate and having on each side of the median part of the disk a somewhat broad longitudinal fuscous band acuminated towards the apex, and a small, supra-marginal fuscous dot set slightly before the median part, the basal part is also narrowly edged with black or fuscous; scutellum impunctate except along the edge of the base; elytra moderately deeply punctate and having along the inner dorsal part three small whitish patches the median one of which is ringed with fuscous, along the outer margin is a row of similar white patches; pygidium briefly pubescent and with two lateral white patches; abdominal segments with two lateral rows of flavescent laminæ, and moderately pubescent on the upper side, pectus and legs densely pubescent, the pubescence flavescent; the hind femora have two flavescent bands, the intermediate ones one.

Var. As often as not the whole upper side and the pygidium are

black, opaque, and the markings on the elytra, pygidium, and under side white. This melanic form is common.

P. bi-punctata, Kr., does not seem to differ from *P. simonsi*.

P. velutina was described by me from a very small example from Natal clothed with a dense velvety coating, and having only a small transverse white streak situated near the suture in the posterior part of the elytra. I never saw but one example of this variety.

Kolbe considers (Kaf. Deuts. Ost. Afrik., p. 180) *P. simonsi* as a variety of *P. leucomelana*, but apart from the shape of the clypeus and the vestiture of the head it is greatly differentiated by the shape of the genital armature of the male, the clasps of which are simple laterally in the latter, but are longer and sharply hamate at a short distance from the apex in *P. simonsi*.

Length 12–18 mm.; width 8–8½ mm.

Hab. Natal (Maritzburg, Eshowe); Transvaal (Zoutpansberg); Southern Rhodesia (Salisbury, Sebakwe, Manica); also Nyassaland and Eastern Africa (Zanzibar, Bagamoyo).

Gen. ANOPLOCHILUS, McLeay,
Illustr. Zool. Afric., 1838, iii., p. 21.

Diathermus, Kraatz, Deutsch. Entomol. Zeitschr., 1897, p. 402.
Odontothyrea, Schoch., Mith. Schw. Ent. Ges. x., 1897, p. 50.
Onychotarsus, Schoch., loc. cit.
Sisyrapha, Kraatz, Deutsch. Entomol. Zeitschr., 1881, p. 264.
Xeloma, Kraatz, loc. cit., 1881, p. 264.

Mentum parallel, fused with the ligular part which is not narrower than the mentum and is truncate at apex, labial palpi inserted laterally on the outer face, last joint similar in shape to the terminal maxillary one and either fusiform at the base and obtuse at the tip, or fusiform outwardly only; inner lobe generally long and hooked at tip; upper lobe of maxillæ short and ending in two incurved teeth; clypeus as long as the head, slightly acuminate and more or less distinctly pluri-dentate in front; antennæ normal; prothorax dehiscent in the anterior part, plainly narrowed laterally there, sub-parallel thence, deeply sinuate above the scutellum which is very broad at the base, long and sharply acuminate; elytra broader than the prothorax, slightly narrowed behind, pluri-costate; pygidium broader than long, vertical; mesosternum with a bluntly knobby process; legs moderately long, robust, especially the hind femora; anterior tibiæ strongly tri-dentate; basal joint of hind tarsi very strongly dentate or spinose outwardly; body short, massive, head pubescent; elytra glabrous, under side densely pubescent.

Some of the species included in this genus, such as *A. rusticus*, *germari*, *variabilis*, have fossorial habits; in those the upper spur of the hind tibiæ of the ♂ is more compressed and slightly blunter than in the others. When the basal joint of the hind tarsi is greatly produced outwardly, the same joint of the median tarsi and even the second are also similarly produced although in a lesser degree; the other species seem to be floricolous, and in these the basal joint of the hind tarsus is gradually reduced and becomes even quite normal (*A. tomentosus*).

Kraatz has founded the sub-genus *Sisyraphora* for *A. tomentosus*, which certainly differs from the other species in the vestiture, the shape of the clypeus, and of the hind tarsi, and the sub-genus *Xeloma* for *A. odiosus*, which differs also not only in the shape of the clypeus but the sculpture approximates greatly that of the genus *Pseudoprotaetia* with which it forms an undoubted link, although *Pseudoprotaetia* belongs to another group of Cetonidæ according to my arrangement of the same. The differences of the genus *Diathermus*, also of the same author, are more specific than generic. *Odontothyrea*, Schoch., is merely distinguished by the two median teeth of the clypeus projecting beyond the other two, which are thus almost sub-lateral.

Key to the Species.

A⁵. Basal joints of intermediate and hind tarsi spinose outwardly.

*a*². Clypeus weakly quadri-dentate.

Hind spurs almost as long as the four basal joints taken together .. .. *rusticus.*

*a*¹. Clypeus strongly quadri-dentate.

Hind spurs not as long as the four basal joints taken together .. .. *germari.*

A⁴. Basal joint of hind tarsi ending in a long hamate tooth outwardly.

Clypeus bi-dentate .. .. *variabilis.*

A³. Basal joint of hind tarsi spinose only outwardly.

Clypeus sharply acuminate, deeply emarginate in the centre and with the outer angles upturned.

Prothorax strongly sloping laterally in front.. .. .. *odiosus.*

Prothorax ampliated laterally from near the apex .. .. .. *mashunus.*

Clypeus quadri-dentate, the two median teeth longer than the lateral .. .. *figuratus.*

A². Basal joint of hind tarsi angular only outwardly.

Clypeus sharply quadri-dentate, the teeth of equal size .. .. *globosus.*

A[1]. Basal joint of hind tarsi normal.

Clypeus parallel, deeply sinuate in front; whole body covered with a thick pile of golden-yellow pubescence .. .. *tomentosus.*

ANOPLOCHILUS RUSTICUS, Gor. and Perch.,
Monogr. Cét., p. 263, pl. 50, fig. 4.
ruricola, G. and P., loc. cit., p. 264, pl. 50, fig. 6.

Either entirely black or with the elytra more or less testaceous; head and clypeus deeply and scabrosely punctured, and densely pubescent, the pubescence flavescent; the clypeus is slightly narrowed towards the apex the upturned truncate margin of which bears four small teeth; the galea is bluntly 3-dentate; prothorax diagonally narrowed laterally from the median part to the apex, parallel behind, plainly dehiscent in the anterior part of the disk, covered all over with round, deep punctures separated from each other by an interval much narrower than their own diameter except in the median basal part, and each setigerous, the hairs along the outer margins are very long; scutellum punctate but having the basal part and a median longitudinal space impunctate; elytra narrowing slightly in the posterior part, plainly bi-costate on each side, but having also traces of other costules, shallowly punctate, each puncture bearing a minute flavescent hair; pygidium glabrous; sides of abdomen, of pectus, and femora pubescent; basal joint of intermediate tarsi moderately spinose outwardly, first and second joints of the hind ones more strongly spinose, the spine of the first one being more produced than that of the second; the development of the outer part of these tarsal joints vary, however, in individuals, and also according to the sex.

This species seems to have subterranean habits. It is occasionally found in sandy places, dragging itself along, much in the manner of the Dynastid species of *Heteronychus;* it is somewhat rare in the neighbourhood of Cape Town, but I have found it twice in fairly good numbers in submerged or flooded places. Examples with testaceous wing-cases are commoner than those which are completely black.

Length 10–12 mm.; width 6–7 mm.

Hab. Cape Colony (Cape Town, Stellenbosch, Paarl).

ANOPLOCHILUS GERMARI, Wiedem.,
Zoolog. Magaz., ii., p. 86.

Black, with a transverse reddish-yellow patch at the base of the prothorax and immediately above the scutellum, elytra flavescent;

head, prothorax, pectus and sides of abdomen clothed with a dense sub-flavescent pubescence; the median part of the scutellum, and also of the pygidium, is occasionally longitudinally brick-red. This species is so closely allied to the preceding one that it might easily be taken for a variety of the same. It is, however, one-third larger, the anterior margin of the clypeus is much more plainly quadri-dentate; the pubescence is conspicuously longer on the prothorax; the elytra have a series of small, black patches on the two dorsal costæ, but there is occasionally faint traces of similar spots in *A. rusticus;* the upper spur of the hind tibiæ is slightly shorter, and in the male the spinose outer part of the hind tarsi is more robust. The clasps of the genital organ of the male are only moderately curved at apex and slightly sinuate laterally at about the median part in *A. rusticus*, but they curve more abruptly downwards in *A. germari*, and they are not sinuate laterally.

The habits of this species are those of the preceding ones. I have found it also under sand on the sea-shore.

Length 13–16 mm.; width 8–9 mm.

Hab. Cape Colony (Neighbourhood of Cape Town, Kowie, Albany).

ANOPLOCHILUS VARIABILIS, Gor. and Perch.,
Mon., p. 261, pl. 50, fig. 1.

spinitarsis, McLeay, Ill. Zool. S. Afr., iii., p. 21, pl. 1.

Colour very variable; brick-red on the upper side and black underneath, brick-red on the upper side with two longitudinal black patches in the discoidal part of the prothorax, dark olive-green on the surface only, or totally black; hairy on the head, but glabrous on the prothorax and elytra, and with a light fulvous pubescence on the pectus; palpi and pedicel of antennæ rufescent; the maxillary galea is sharply bi-dentate; clypeus distinctly narrowed towards the apical part, which is very deeply sinuated, with the outer angles sharp and reflexed, and the central part of the emargination slightly bi-dentate in the male, but simple in the female, in which sex the outer clypeal angles of the clypeus are slightly rounded; prothorax covered with deep punctures set closer to each other on the sides than on the disk; scutellum punctured laterally but not at the base; elytra narrowed behind, plainly pluri-costate in the dorsal part with the intervals deeply and broadly punctured, almost foveolate, and punctate seriate laterally; pygidium covered with slightly cicatricose shallow punctures, moderately pubescent; basal joint of intermediate tarsi spinose outwardly, that of the hind tarsi pro-

duced into a hamate, long process, second joint of both tarsi normal.

Length 15–16 mm.; width 9–9½ mm.

Hab. Cape Colony (Kowie, Albany).

The colour of the upper surface is very variable, the olive-green turns often to reddish on the sides of the elytra.

A. ODIOSUS, Gor. and Perch.,
Monog., p. 263, pl. 50, fig. 5.

setosus, McLeay, Ill. Zool. S. Afr., iii., p. 21.

maurus, Boh., Ofv. Vet. Ak. Forh., 1860, p. 117.

Black, sprinkled all over with flavescent minute patches filling up the punctures over which they are sprinkled; antennæ dark chestnut-brown; clypeus very narrowed laterally towards the apex, sinuate in front and with the two outer angles sharp and reflexed in the ♂, but less acute in the ♀, and somewhat hollowed on each side at the extremity, closely punctate like the head which is only sparsely and briefly setulose, not pubescent as in the other species; the galea of the maxillæ is sharply bi-dentate in both sexes, but in the ♀—and this seems to be an exception—the mando or lower lobe has a short but sharp inner tooth; prothorax sloping diagonally laterally from the apex to a third of the length, broadly rounded towards the base, almost glabrous, deeply and closely punctured, faintly bi-impressed on each side of the disk, and having a longitudinal, raised, nearly smooth median line; scutellum closely punctured, but having a longitudinal, median impunctate band; elytra slightly narrower at the apex than at the base, plainly bi-costate on each side, and covered with somewhat irregular cicatricose punctures; pygidium punctate and having occasionally a sprinkling of small, flavescent macules similar to those on the elytra; pectus sparingly pubescent; basal joint of intermediate tarsi normal, that of the hind ones produced outwardly in a somewhat long spine of equal length in both sexes.

Length 12–13 mm.; width 7–8 mm.

Hab. Transvaal (Rustenburg, Lydenburg, Pretoria, Waterberg Zoutpansberg), Bechuanaland (Ramoutsa), Ovampoland.

ANOPLOCHILUS MASHUNUS, n. sp.

Female: Black, moderately shiny, antennæ chestnut-brown; very closely allied to *A. odiosus*, and likewise almost glabrous on the head, prothorax, and elytra; the clypeus is also narrowed laterally towards the apex and sinuate there, but the outer angles are more reflexed and sharper than in the female of *A. odiosus*, and there is a median

longitudinal ridge dividing the anterior part into two depressions; the prothorax, instead of being sloping laterally from the apex to about one-third of the length, is ampliated from a short distance from the apex, and instead of being sprinkled with sub-flavescent macules, it has a broad lateral greyish-white band, and a broad patch of the same substance and colour on each side of the base; the sculpture is identical with that of *A. odiosus;* the elytra, which have the same sculpture, are faintly maculated with greyish white in the dorsal part, but the outer margins are filled with closely set macules, and the anterior part of the under side of hind coxæ, as well as the sides of the metasternum, are greyish white; basal hind spur spinose outwardly as in *A. odiosus.*

Length 12 mm.; width 7½ mm.

Hab. Southern Rhodesia (Upper Hanyani River).

ANOPLOCHILUS (ODONTOTHYREA) FIGURATUS, Bohem., Insect. Caffr., 1857, ii., p. 28.

cinnamoneus, Schoch., Mith. Schw. Ent. Ges., x., 1897, p. 50.

Either quite black, opaque, or black with the upper part light testaceous, the prothorax when testaceous has three longitudinal median black bands and two maculæ on each side; scutellum with a median elongated, sharply pointed black patch; elytra numerously maculated, almost tessellated with black; pygidium with two large white patches, frontal part clothed with a light flavescent dense pubescence, clypeus with the median part produced beyond the sharply spinose outer angles, and very sharply dentate on each side of the median arcuate emargination; palpi and antennæ rufescent; prothorax moderately briefly pubescent, ampliated diagonally from the apex to about one-third of the length, and nearly straight thence to the base, covered on the upper side with round, equi-distant setigerous punctures; scutellum sparingly punctate laterally; elytra slightly narrower behind than at the base, plainly bi-costate on each side, but with the intervals striate punctate, the raised interspaces have a few, scattered, briefly setigerous punctures; pygidium faintly punctate, glabrous; sides of abdomen and pectus clothed with a dense, slightly flavescent pubescence; basal joint of hind tarsi triangularly produced outwardly.

Length 13½ mm.; width 8½ mm.

This species is easily recognised from among its South African congeners by the shape of the clypeus, and the two white patches on the pygidium. The black variety seems to be rarer.

Hab. Transvaal (Rustenburg, Potchefstroom, Pretoria, Pietersburg).

ANOPLOCHILUS (DIATHERMUS) GLOBOSUS, Schoch.,
Mith. Schw. Entomol. Gesels, 1897, p. 55.

Black, the upper side light testaceous, or completely black, opaque in both cases; when the upper part is testaceous the prothorax has three somewhat broad and entire fuscous discoidal bands, the scutellum has a median longitudinal black band, and is edged with black; the elytra are tessellated more or less regularly with fuscous, and the black pygidium is concolorous; this species is somewhat closely allied to *A. figuratus*, Boh., but it differs in the following points: the teeth of the quadri-dentate clypeus are in a line along the anterior margin, instead of the two median ones projecting considerably from the base beyond the two sub-lateral ones, as in *A. figuratus;* the prothorax is much more densely pubescent, the pubescence being longer and very flavescent, and the punctures are very much deeper and much more closely set; elytra slightly narrower behind than at the base, pluricostate on the dorsal part, and plainly punctate striate laterally; pygidium irregularly punctate; sides of abdomen clothed with a moderately dense fulvescent pubescence which is very thick on the pectus; the basal joint of the anterior tarsi is plainly triangular in both sexes, but the upper angle does not project as much as in *A. figuratus*, in which species the length is, however, very variable. The shape of the genitalia of the male differs considerably in each species.

Length $13\frac{1}{2}$–$14\frac{3}{4}$ mm.; width $8\frac{1}{2}$–9 mm.

Hab. Transvaal (Potchefstroom).

ANOPLOCHILUS (SISYRAPHORA) TOMENTOSUS, Gor. and Perch.,
Monogr. p. 266, pl. 51, fig. 5.

Black, covered all over with a thick pile of golden-yellow pubescence hiding completely the teguments; antennæ chestnut-brown; mando of maxillæ strongly hamate; clypeus parallel, rounded laterally in the anterior part with the anterior margin deeply sinuate and simple; prothorax normally attenuated diagonally laterally in the anterior part and deeply and closely punctate; scutellum and elytra of the normal shape, very little narrower at apex than at base, distinctly bi-costate on each side; pygidium, with two small denuded patches in the centre, and occasionally also on the sides, but the number of patches varies a good deal; legs as hairy as the body; basal joint of hind tarsi not sharply angular laterally.

The shape of the genital clasps of the ♂ greatly approximates to that of *A. odiosus*.

Is found on flowers, especially Compositæ.

This species appears to be very abundant where it occurs; it is distributed over Natal, the Orange River Colony, and the Transvaal. In the Cape Colony it is met with in the Eastern Provinces only.

Length 12–13½ mm.; width 8–8½ mm.

GORAQUA, n. gen.

Male: Facies moderately robust, clypeus sub-parallel but arcuate laterally towards the apex the margin of which is narrowly sinuate in the centre; mentum long, sub-parallel, sinuate at apex, the labial palps inserted near the apex, maxillæ slender, the lobes inermous, upper one surmounted by a long pencil of hairs; prothorax sub-trapezoidal, deeply arcuate above the scutellum; elytra shaped as in *Atrichelaphinis* and *Elaphinis*, and thus less short and less robust than in *Anoplochilus*, bi-costulate on each side with the intervals slightly striolate, but the striæ not geminate; anterior tibiæ tridentate (♀) in the manner of *Anoplochilus;* the two basal joints of hind tarsi triangular, the basal one shorter than the second, but not spinose outwardly, sternal process broadly arcuate, not projecting much beyond the coxæ, and with a plain longitudinal groove.

Intermediate in form between *Atrichelaphinis*, the buccal organs and the mode of sculpture of the elytra of which are similar, and *Sisyraphora*, but differing from the latter in the non-dentate lobes of the maxillæ, and the less robust body.

GORAQUA SMITHSANA, n. sp.

Female: Black, with the elytra flavous testaceous, under side with a somewhat metallic sheen, upper side opaque; club of antennæ sub-rufescent. Head, with the exception of the clypeus and prothorax very densely villose, the villosity light flavescent, decumbent in the only example I have as yet seen, the whole disk covered with punctures, but the arcuate part of the base above the scutellum is broadly impunctate, and therefore bare; scutellum impunctate, except along the basal margin where there are a few briefly setigerous punctures; epimera as densely flavous pubescent as the prothorax; elytra deeply sinuate laterally, very little attenuate behind, bi-costate on each side with the apical part of the suture sharp, but not acuminate, the flavous testaceous background is tessellated with black; pygidium covered with light yellow hairs not sufficiently dense, however, to hide the black background; sides of the abdomen and the whole pectus clothed with dense, long flavous testaceous hairs, except along

the median part which is grooved longitudinally; anterior tibiæ tri-dentate, the upper tooth small, but very distinct.

Length 12 mm.; width 7 mm.

Hab. Cape Colony (Ladysmith).

Gen. TRICHOSTETHA, Burm.,

Handb. d. Entomol., iii., 1842, p. 398.

Mentum very broadly dilated laterally from the median part to the apex which is almost bi-lobate, each lobe being broadly rounded, palps cavity narrow, shallow; maxillæ broad, robust, inner lobe simple, densely hairy, upper lobe narrow, styliform, coated with long, dense hairs; last joint of palpi nearly cylindrical; clypeus parallel, if seen from above, and plainly carinate laterally, anterior margin not carinate, broadly but not deeply scooped out in the centre with the angles moderately rounded; antennal club not quite as long as the pedicel in the ♂; clypeus sub-parallel and carinate laterally but with the lower margin slightly ampliate; the anterior margin is not reflexed and is broadly but not deeply scooped; prothorax sub-trapezoid, base arcuate above the scutellum which is long, sharply acuminate, and very distinctly grooved laterally; elytra broader than the prothorax at the base, moderately attenuate behind, strongly sinuate laterally, and having on each side a dorsal costa beginning at the strong humeral callus and reaching to a short distance from, or to half the length; sternal process broad, transverse, or slightly arcuate, projecting somewhat beyond the coxæ; anterior tibiæ strongly tri-dentate outwardly, intermediate bi-dentate on the upper side, posterior uni-dentate; tarsi somewhat short, joints triangularly elongated and angular outwardly in both sexes, but less so in the ♂ than in the ♀.

The species included in this genus are strictly South African. One species (*T. fascicularis*) ranges from Cape Town to Natal and the Transvaal, and will probably be found in the South African area wherever *Protæa* grow. The larvæ of another species (*T. capensis*) are found under the base of the small mounds made by the white ant (*Termes latericius*), and are commonly found there in company with the large grubs of the Dynastid *Pseudocyphonistes corniculatus;* they both feed on the material the mound is made of.

This is the only genus in the Sub-Family *Cetonini* known to me in which the humeral callus is continued as a supra-lateral costa.

Key to the Species.

A². Each elytron with only one humeral costa.

B². Upper part of abdominal segments with fascicles of long, dense hairs.

C³. Prothorax black, shiny, with four white longitudinal lines.

Elytra opaque, green or olivaceous, concolorous.. *fascicularis.*

Elytra opaque, prune, sparsely albo-punctate .. var. *prunipennis.*

Elytra opaque, dark bottle-green splashed with more or less numerous white patches and dots .. var. *natalensis.*

A¹. Each elytron with two costæ.

B¹. Upper part of abdominal segments densely pubescent.

*a*². The dorsal costa very feebly indicated.

C². Prothorax and elytra with numerous sub-seriate white macules.

Upper side fleshy red .. .. *capensis.*

Upper side black, elytra with an elongated reddish dorsal patch .. .. *bicolor.*

*a*¹. The dorsal costa entire, well defined.

Upper side black; prothorax and elytra with numerous sub-seriate white macules .. .. *albopicta.*

C¹. Thorax black, reddish in the centre, marginated with white; elytra light testaceous with the suture, the humeral costa and the hind callus fuscous.. .. .. *signata.*

TRICHOSTETHA FASCICULARIS, Linn.,
System. Natur., i., 2, p. 557;
Gor. and Perch., Monogr., p. 255, pl. 48, fig. 6.

Var. *prunipennis*, Burm., Handb. d. Entomol., iii., p. 400.
Var. *natalis*, Burm., loc. cit., p. 401.

Type. Black, shiny on the upper and under sides but the elytra are opaque green or greenish olivaceous without any traces of white macules; on the prothorax are four white longitudinal lines, the under side is almost completely clothed with long, sub-appressed fulvo-flavescent hairs which are disposed in fascicles on the epimera and along the edge of the dorsal part of the abdominal segments; the pygidium bears also three long fascicles; clypeus with a longitudinal impression on each side, and like the head sparsely punctulate; palps and antennæ black; prothorax glabrous, very weakly punctulate; scutellum impunctate; an opaque tomentum

hides the sculpture of the elytra, which seem to be weakly striolate in the neighbourhood of the suture, the humeral costa reaches only to about one-fourth of the length, and there are no traces of a discoidal one; the legs are shiny and sparingly punctate.

This type form seems restricted to the extreme part of the South-Western Districts of the Cape Colony.

Var. PRUNIPENNIS. Like the type, but the elytra and pygidium are opaque, roseate brown with a short marginal white line along the humeral part, and a few white dots, they are sometimes sub-seriate, in the anterior dorsal part.

This variety occurs in Natal (Durban, Maritzburg, Frere); Transvaal (Potchefstroom, Lydenburg, Pretoria).

Var. NATALIS. Like the var. *prunipennis*, but in addition to the four longitudinal white bands of the prothorax there is occasionally a central median very short line or elongated spots, the elytra are opaque, dark bottle-green and splashed all over with white macules; some examples have no traces of a central line on the prothorax, and are only sparingly splashed with white punctures.

Burmeister described this variety as having been captured by Drège in Natal. My examples are from Victoria West and Dordrecht, in the Cape Colony.

Length 21–25 mm.; width 13–15 mm.

TRICHOSTETHA CAPENSIS, Linn.,

Plate XLIII., fig. 15.

Syst. Nat., i., 2, p. 556;

Gory and Perch., Monogr. p. 257, pl. 49, fig. 2.

albopunctata, de Geer., Mém. Ins., vii., p. 640, pl. 48, fig. 2.

barbatula, Voet., Col., i., p. 12, pl. 2, fig. 11; Herbst., Käf., iii., p. 259, pl. 32, fig. 7.

Var. *fuscorubra*, Voet., Col., i., p. 12, pl. 2, fig. 12; Herbst, Käf., p. 245, pl. 30, fig. 12.

hirsuta, McLeay, Ill. Zool. Afric., iii., p. 46.

hottentota, Gor. and Perch., Monogr., p. 62.

oculata, McLeay, loc. cit., p. 46.

Black, opaque on the upper side, shiny underneath; the prothorax is rufescent in the centre, fuscous on the sides, and has there three more or less regular series of white macules and a row of white dots in the red central part; the scutellum has a lateral basal white band or several dots on each side; the elytra are brownish red and ornamented with numerous, more or less seriate white macules, but the suture is always fuscous, the pygidium is also maculated

with white; the brownish-red indumentum is opaque. Clypeus glabrous, deeply punctulate, the punctures not closely set, frontal part clothed with a fairly long ashy-grey pubescence; the prothorax is moderately closely punctulate, and the punctures, although hidden by the opaque indumentum, bear each a long greyish or whitish seta; scutellum impunctate; elytra with the humeral costa reaching to about the median part, and having also a dorsal one reaching slightly further down, this dorsal costa is oftener than not nearly obliterated, the intervals are filled with numerous, shallow subseriate punctures, all the dorsal ones of which bear a long erect greyish or whitish seta; pygidium with a long greyish or whitish pubescence; pectus, edge of the dorsal part of abdomen, and also the sides of the ventral part clothed with a long greyish or greyish-white pubescence; legs and under side shiny.

The opaque indumentum, the white markings, especially those on the elytra, and the dorsal setæ are very often partly rubbed off (*T. oculata, hottentota, fusco-rubra*). These examples are then very different from the newly emerged imagoes.

Length 16–19 mm.; width 9–10 mm.

Hab. Cape Colony (Cape Town, Stellenbosch, Paarl, Malmesbury, Worcester, Ceres, Caledon).

TRICHOSTETHA BICOLOR, n. sp.

Black, opaque on the upper side, but having on each elytron an elongated brownish-red band extending from the base to about the median part, and situated between the humeral costa and the slightly raised dorsal one; the thorax, elytra, and pygidium are splashed with white dots and macules as in *T. capensis*, with which it might be easily confounded, except for the constant rufescent patch on the elytra. The shape of the genital clasps of the male differs, however, considerably from that of *T. albopicta, signata*, and *capensis*, in not being acuminate or attenuate at apex, but almost truncate there.

Length 18–19 mm.; width 10–11 mm.

This species has only been met with, to my knowledge, in the neighbourhood of Saldanha Bay, near Cape Town.

TRICHOSTETHA ALBOPICTA, Gor. and Perch.,

Plate XLIII., fig. 12.

Monogr. d. Cét., p. 256, pl. 49, fig. 1.

This species might be taken for a black variety of *T. capensis*, but the shape of the genitalia of the male is different. Black,

clothed laterally and underneath with a dense fulvous pubescence; the prothorax has a narrow lateral white band, and two dorsal rows of white elongated macules situated in three hollow elongated impressions, there are occasionally three or four other small macules filling also each an impression; scutellum immaculate; elytra splashed with numerous white, seriate dots and macules; pygidium with a divided, larger white patch on each side. The upper side is not opaque, the head and prothorax are glabrous and punctulate; the elytra have in the intervals series of very remote upright setæ, the humeral costa reach the median part, and the dorsal one is plainly continued on each side so as to coalesce with the posterior callus.

Length 16–17 mm.; width 9½–10 mm.

Hab. Cape Colony (Knysna, Riversdale).

Trichostetha signata, Fabr.,

Plate XLIII., fig. 13.

Syst. Ent. App., p. 818;

Gory and Perch., Monogr., p. 258, pl. 49, fig. 3.

This species closely approximates rubbed examples of *T. capensis*, but the genital armature of the male differs considerably in shape. The head and prothorax are black and shiny, the latter has a narrow median reddish band, often reduced to a triangular reddish patch above the base, and a non-interrupted narrow white band along the lateral margin, both head and prothorax are glabrous, and the latter is very distinctly punctate laterally; scutellum black; elytra bright sienna-brown with the suture, the humeral costa, and the hind callus infuscate, they are opaque, indistinctly punctulate, the humeral costa reaches to about the median part, but the posterior callus is elongated, the dorsal costa is almost obliterated in the posterior part, and there are a few setæ in the first and second intervals; the pygidium is pubescent and has four longitudinal flavescent-white macules, the pectus and sides of abdomen are clothed with a dense fulvous pubescence. In some examples the elytra have a narrow sub-flavescent marginal band in the rounded posterior part.

Length 19–22 mm.; width 10½–12 mm.

Hab. Cape Colony (Knysna, Mossel Bay, Riversdale, Willowmore, Tulbagh).

Gen. ODONTORRHINA, Burm.,

Handb. d. Entomol., iii., 1842, p. 396.

Mentum slightly longer than broad, contracted laterally (*pubescens*), or slightly ampliated (*hispida*), ligular part not narrower than the

mentum, deeply emarginate or almost incised in front; maxillæ robust, inermous, mando setose, upper lobe triangular, densely pubescent outwardly, last joint of palps sub-cylindrical, blunted at tip, clypeus slightly longer than the head, strongly parabolic, anterior margin bi- or quadri-dentate; prothorax narrowed laterally in the anterior part, straight thence to the base which is sinuate on each side, and arcuate above the scutellum which is sharply acuminate; elytra massive, more or less distinctly bi-costate on each side, narrower at apex than at base, and covering only one-half of the propygidium; pygidium sub-vertical; mesosternal process projecting beyond the coxæ in a moderately elongate triangular arcuate process; legs robust, anterior tibiæ strongly tri-dentate outwardly, intermediate ones with two sharp teeth, basal joint of hind tarsi not angular laterally in the male the antennal club of which is nearly as long as the whole pedicel.

The genus is restricted to the South-Western part of the Cape Colony.

The two massive species included in this genus belong plainly, in spite of the conformation of the basal joint of the hind tarsi of the male, to the *Goliathites*.

Westerman states that he has found *O. pubescens* under dry cow-dung. Both *O. pubescens* and *O. hispida* fly round such places where cattle congregate, very much in the manner of a *Scarabæus* searching its provender, but they have not been detected, to my knowledge, in either the fresh or the dry cow-dung.

Key to the Species.

Clypeus sharply quadri-dentate in front; body densely hairy above and underneath .. .. *hispida.*

Clypeus bi-dentate in front, briefly pubescent above, and densely underneath .. .. *pubescens.*

ODONTORRHINA HISPIDA, Oliv.,

Ent., i., 6, p. 90, pl. 12, fig. 113;
Gor. and Perch., Mon., p. 260, pl. 49, fig. 5.

hirsuta, Thunb., Mém. Ac. Petr., vi., 1818, p. 412.
pubescens, var., Illig. Mag., vi., p. 303.

Bronze, moderately shiny, clothed on the whole upper side with a long light fulvous pubescence, prothorax with a somewhat wide white lateral margin stopping at the base; clypeus parabolic laterally, sharply angular at apex, and with the narrowed anterior margin produced into four horizontal teeth the two median ones of

which are longer than the others; prothorax covered with small but deep round setigerous punctures divided by an interval slightly narrower than their own diameter; scutellum punctate, hirtose laterally, the apical acuminate part is smooth; elytra very little narrower at apex than at base, and having on each side two discoidal costæ, the second one being, however, almost obliterated, and covered with shallow but somewhat broad cicatricose impressions forming a slight network; pygidium similarly sculptured; abdomen covered with deep, round setigerous punctures; pectus very densely villose; anterior tibiæ sharply tri-dentate outwardly; basal joint of hind tarsi nodose, not sharply angular outwardly.

Length 18 mm. width 11 mm.

Hab. Neighbourhood of Cape Town.

ODONTORRHINA PUBESCENS, Oliv.,

Ent., i., 6, p. 21, pl. 11, fig. 100;
Gory and Perch., Mon., p. 259, pl. 49, fig. 4.

cicatricosa, Wied., Zool. Mag., ii., 1, p. 84.

pubera, Thunb., Mém. Ac. Petr., vi., 1818, p. 420.

Bronze-green, with the humeral part of the elytra darker bronze, or the whole surface is totally bronze with the margins of the prothorax and the legs bright green; clypeus parabolic laterally from the base to the anterior margin which is also rounded laterally, incised at the apex and with each angle of the incision produced into two small, slightly reflexed teeth; prothorax similar to that of *O. hispida* and similarly sculptured, but the pubescence which, like that on the head, is much shorter, is flavescent, and along the outer margin there is a narrow white line; the median apical part of the scutellum is impunctate; elytra narrower at apex than at base, very faintly costulate, covered with deep, round punctures bearing each a somewhat flavescent hair, these punctures are separated by a raised wall, and as they are broader than in *O. hispida*, the pubescence is therefore much less dense; pygidium somewhat densely hairy, irregularly cicatricose punctate, and having on each side a moderately large white patch and occasionally a transverse white line along the base, but these markings are oftener than not entirely obliterated; the penultimate abdominal segment has a small white patch on each side, and the lower outer face of the intermediate and hind femora is white.

Length 18–22 mm.; width 11–14 mm.

Hab. Cape Colony (Paarl, Malmesbury, Namaqualand).

The examples from Port Nolloth, in Namaqualand, are, as a rule,

smaller and more bronzy on the upper side; the pubescence on the prothorax is also sparer and at times completely obliterated, but the shape of the genital clasps is the same in both varieties.

SUB-TRIBE CETONITES.

In this Sub-Tribe are included all the Cetoninous insects, the facies of which is somewhat elongated, and usually plane or depressed above, and in which the elytra when striate have the striæ simply punctate, or geminate without punctures and reaching from base to apex; the basal joint of hind tarsi is obtuse at apex or sub-nodose.

While the first group of this section, the *Ischnostomii*, have very distinct characters separating them from the others, the *Ceratorrhinii*, *Heterorrhinii*, *Gymnetii*, *Pachnodii*, *Elaphinii*, *Porphyronotii*, and *Diplognathii* merge into one another in such a manner that it is impossible to define them except by purely arbitrary characters.

Key to the Genera.

A². Body plane in the ♂, convex and massive in the ♀.

B. Basal joint of hind tarsi as long as the second or shorter; inner hind spur of the ♀ spatuliform.

C. Antennal club of ♂ as long as or longer than the pedicel .. .. ISCHNOSTOMII.

D. Clypeus much longer than the head in both sexes.

E². Sternal process not projecting beyond the coxæ.

F². Base of prothorax not arcuate above the scutellum.

Frontal part not divided from the clypeus by a transverse ridge .. .. *Ischnostoma.*

Frontal part divided from the clypeus by a transverse ridge .. .. *Gariep.*

F¹. Base of prothorax arcuate above the scutellum.

Clypeus not longer than the head and simple in both sexes .. .. *Heteroclita.*

A¹. Body plane in both sexes.

B. Basal joint of hind tarsi shorter than the second; inner hind spur of the ♀ not spatulate.

C. Antennal club of ♂ not as long as the pedicel.

D⁶. Outer angles of clypeus sharply dentate, the centre of the anterior margin produced into a recurved bi- or tri-fid horn in the ♂ .. .. CERATORRHINII.

E. Sternal process strongly projecting beyond the coxæ.

F. Base of prothorax sinuate or arcuate above the scutellum.

a^2. Scutellum not grooved laterally.

b^2. Head of ♂ with two hamate teeth near the vertex.

c^2. Apical joint of fore tarsi pubescent underneath in the ♂ .

d^2. Inner part of anterior tibiæ denticulate in the ♂ .

Mesosternal process horizontal, triangularly produced, inner maxillary lobe simple, upper lobe styliform, not hooked at tip in either sex .. *Dicranorrhina.*

Mesosternal process truncate at apex, maxillary lobes simple in both sexes .. .. *Ranzania.*

d^1. Inner part of anterior tibiæ of ♂ not denticulate.

Mesosternal process bluntly rounded at apex, both maxillary lobes hamate, more strongly so in the ♀ than in the ♂ ; basal anterior tibiæ densely pubescent in the ♂ from the base to half the length .. .. .. *Cheirolasia.*

C¹. Apical joint of fore tarsi not pubescent underneath in the ♂ .

Mesosternal process arcuate at apex, maxillary lobes simple in the ♂ , upper one strongly hamate in the ♀ .. .. *Amaurodes.*

a^1. Scutellum grooved laterally.

b^1. Head of ♂ without hamate teeth near the vertex.

c^2. Apical joint of anterior tibiæ glabrous underneath in the ♂ .

Mesosternal process horizontal, triangularly produced; maxillary lobes simple in the ♂ , upper one strongly hamate in the ♀ .. .. *Eudicella.*

Mesosternal process arcuate at apex, maxillary lobes simple in both sexes; anterior tibiæ incised at the base, and femora strongly hamate in the ♂ .. .. *Neptunides.*

d^1. Inner part of anterior tibiæ not denticulate in the ♂.

Mesosternal process long, laminate, slightly reflexed at tip; inner lobe of maxillæ dentate in the ♂, both hamate in the ♀ .. .. .. *Cœlorrhina.*

Mesosternal process laminiform, triangularly acuminate, slightly reflexed at tip .. .. .. *Stephanorrhina.*

D^5. Clypeus sub-parallel in the ♂, the centre of the anterior margin produced in the ♂ into a bi- or tri-fid horn, occasionally reflexed and laminate, or simple .. .. (HETERORRHINII.)

E^2. Sternal process strongly projecting beyond the coxæ.

F^2. Base of prothorax sinuate or arcuate above the scutellum.

a^2. Scutellum grooved laterally.

b^2. Head simple in either sex.

Mesosternal process with an orbicular or sub-orbicular suture; inner lobe of maxillæ simple, upper one truncate at apex and concave inwardly; hind femora strongly developed, dentate at base in the ♂ .. *Eccoptocnemis.*

Mesosternal process very short, triangular, both maxillary lobes simple in either sex .. .. *Scythropesthes.*

Mesosternal process long, broadly triangular, slightly slanting downwards .. .. *Inhambane.*

b^1. Head of ♂ simple or provided with two sub-porrect or porrect horns in the ♂.

Mesosternal process long, slender and strongly recurved at apex; inner lobe of maxillæ hamate, upper one sharply bi-hamate .. .. *Melinesthes.*

Inner lobe of maxillæ with a hamate tooth, upper lobe mucronate only in both sexes. Head of ♂ with an horizontal basal horn overlying the centre of the clypeus, the anterior margin of which is reflexed into a laminate process .. .. *Genyodonta.*

a^1. Scutellum not grooved laterally.

b^1. Clypeus of ♂ and occasionally of ♀ with a basal median horizontal tooth or lamina not reaching the apex.

c^2. Scutellum longer than broad, very sharp at tip.

Mesosternal process strongly recurved at apex; inner lobe of maxillæ with a distinct hook .. *Isandula.*

b^2. Clypeus of ♂ simple as in the ♀.

d^3. Sternal process long, aculeate not recurved

Inner lobe of maxillæ simple, upper lobe long, sub-falcate; elytra plainly costulate .. .. *Ptychodesthes.*

d^2. Sternal process short, bluntly aculeate.

Maxillary lobes simple in both sexes; clypeus deeply incised laterally at base, outer angles broadly rounded, fore margin broadly emarginate .. .. *Raceloma.*

c^1. Scutellum almost as broad as long, sharp at tip.

d^1. Sternal process long, strongly recurved.

Inner lobe of maxillæ simple, upper lobe strongly hamate, head with a short carina ending in a tooth in the centre of the clypeus .. .. *Tæniesthes.*

Inner lobe of maxillæ simple, upper lobe acuminate, head simple in both sexes .. .. *Plæsiorrhina*

E^1. Sternal process not projecting beyond the coxæ.

F^1. Base of prothorax straight above the scutellum.

a. Scutellum elongated, sharply triangular.

Clypeus simple; truncate at apex with the margin reflexed; elytra pluricostate; livery black with fulvous or whitish patches on the prothorax, and a white margin on the elytra .. .. *Mazoe.*

D⁴. Clypeus strongly attenuated in front, simple in both sexes. Sternal process long, moderately long or sub-obtuse .. .. *Schizorrhinii.*

G². Intervals of elytra punctate or seriate punctate.

a. Maxillary lobes inermous, upper one with a long pencil of hairs.

F³. Base of prothorax strongly arcuate above the scutellum.

*a*². Scutellum sharply acuminate at apex, grooved laterally .. .. .. *Schizorrhina.*

Outer angles of clypeus sharply produced beyond the fore margin.

Sternal process long, incurved, body glabrous .. .. *Gnathocera.*

Sternal process projecting but little beyond the coxæ, body villose .. .. *Gnathocerida.*

*a*¹. Scutellum little acuminate at tip, not grooved laterally.

Anterior margin of prothorax slightly tectiform in the centre; body very plane, elytra not costate, anterior tibiæ tri-dentate .. .. *Gametis.*

F². Base of prothorax straight above scutellum.

Anterior margin of prothorax simple; elytra slightly or not costate, anterior tibiæ bi-dentate .. .. *Cosmiophæna.*

F¹. Base of prothorax produced triangularly above the scutellum so as to cover part or the whole of it .. .. GYMNETII.

*a*². Base of prothorax covering the base only of the scutellum.

Anterior margin of clypeus not reflexed; sternal process hardly projecting beyond the coxæ .. *Discopeltis.*

*a*¹. Base of prothorax covering the whole of the scutellum.

Anterior margin of clypeus not reflexed; sternal process long, strongly incurved .. .. *Amazula.*

Anterior angles of clypeus reflexed; sternal process very long, slightly slanting downwards and obliquely truncate at tip .. .. *Stethosdema.*

Anterior margin of clypeus not flexed, sternal process short, sharply acuminate .. .. *Pseudoclinteria.*

D³. Clypeus slightly attenuate in front, simple in both sexes; median part of fore margin of prothorax raised or sub-tuberculate .. .. PACHNODII.

F¹. Prothorax arcuate above the scutellum.

G². Intervals of elytra not deeply striate punctate.

*a*². Maxillary upper lobe dentate.

Anterior tibiæ of ♂ uni-dentate, fore margin of clypeus plainly reflexed; sternal process blunt .. *Atrichia.*

Anterior tibiæ of ♂ uni-dentate, fore margin of clypeus simple, sternal process short, obtuse .. *Pachnoda.*

Anterior tibiæ of ♂ uni-dentate, fore margin of clypeus simple, sternal process sub-porrect, elongated .. .. *Rhabdotis.*

G¹. Intervals of elytra each with two geminate, impunctate striæ.

*a*¹. Maxillary lobes inermous, upper one with a long pencil of hairs.

Base of prothorax very slightly sinuate above the scutellum; elytra bi-costate, suture sharp, but not projecting much .. .. *Elaphinis.*

D². Base of prothorax arcuate above the scutellum; body depressed; dorsal intervals of elytra geminate, striate .. .. PORPHYRONOTII.

*a*². Maxillary lobes simple, penicillate.

Suture of elytra very sharp and strongly projecting, upper side of hindtibiæ unidentate .. .. *Niphetophora.*

*a*¹. Maxillary lobes dentate.

Body depressed, suture of elytra sharp but not projecting, upper side of hind tibiæ pluri-spinose .. .. *Porphyronota.*

Angles of clypeus recurved, dentate; angles of clypeus not recurved.. .. .. *Chirinda.*

D¹. Clypeus carinate laterally, the angles sharply angular or projecting considerably beyond the anterior margin .. .. DIPLOGNATHII.

a. Maxillæ strongly dentate.

Anterior angles of clypeus very sharply angular; elytra neither costate nor striate; sternal process acuminate .. .. *Diplognatha.*

Anterior angles of clypeus projecting far beyond the anterior margin; elytra pluricostate, sternal process strongly aculeate.. *Apocnosis.*

GROUP ISCHNOSTOMII.

This Group includes soberly clad insects, differing from the *Ceratorrhinii* in the absence of a long projecting sternal process, the metasternum merely penetrating the apex of the intermediate coxæ, or bluntly triangular there; the shape of the clypeus is very singular in some of the males, in which sex the antennal club is much longer than in the female, and in some cases (*Gariep*) as much developed as in any South African *Pachypodini*. The very strongly spatulated shape of the upper spur of the hind tibiæ in the ♀ plainly implies a mode of life akin to the representatives of that Sub-Family. That in the adult stage they feed only on semi-liquid matter is proved by the shape of the maxillæ. Except for one species met with in Central Africa, representatives of this Group are, so far as now known, restricted to South Africa.

GEN. ISCHNOSTOMA, Gory and Percheron,

Monogr. d. Cét., 1833, p. 42.

Mentum ovoid, concave, ligular part parallel, nearly half the length of the mentum, scooped laterally along almost its whole length for the reception of the labial palpi which are inserted at the apex, and sub-arcuate in front; labial palps as long as the three apical maxillary; maxillæ very slender, upper lobe very narrow, twice as long as broad, and with a long pencil of black hairs at tip; maxillary palps extremely long; the mentum and maxillæ are clothed with very long, black hairs; clypeus of ♂ longer than the head and differently shaped, that of the ♀ very elongated, deeply emarginate at apex, canthus of the eyes horizontal and spinose; antennæ long, club as long or longer than the pedicel and laminiform in the ♂, shorter and oblong in the ♀; prothorax of the ♂ diagonally attenuate laterally in front, straight from near the

median part to the outer basal angle which covers part of the somewhat narrowed and vertical mesothoracic epimera, base very slightly arcuate; the surface is nearly plane; in the ♀ the prothorax is broader than long, more ampliate rounded laterally and thus leaving the mesothoracic epimera uncovered, the base is slightly bi-sinuate; scutellum very long and very sharp; elytra sub-parallel in the ♂, plane and as broad as long in both sexes, but more ampliated behind in the ♀; pygidium vertical; legs slender with the tarsi as long as the tibiæ in the ♂, slightly shorter in the ♀; anterior tibiæ bi-dentate outwardly in the ♂ with sometimes a small trace of a third upper tooth, tri-dentate in the ♀; in that sex the terminal part of the hind tibiæ is dilated, and the upper hind spur is broadly spatulate, while in the ♂ that terminal part is somewhat slender and the two spurs are long and sharp; mesosternum with a small process between the coxæ, this process is sub-vertical (*I. rostrata*) or sloping and not well defined (*I. cuspidata, I. nasuta*).

It seems that the insects included in this genus live on fresh excrements of herbivorous animals. They are, however, found also on trees in flower. Female examples are very rare, and that they are powerful burrowers is proven by their spatuliform hind spurs. I am of opinion that in the larval stage some live in the detritus heaps of termitaria. The synonymy of the described species of this singular genus, which does not seem to have any ally outside the South African Sub-Region, is very complicated. Three undoubtedly different species are known to me, and one described by Burmeister would appear also to be a valid one.

Key to the Species (♂ ♂).

A². Clypeus much longer than the head; antennal club very long.

B². Black, with the prothorax and elytra marginated with white.

Antennal club very much longer than the pedicel; clypeus deeply bi-incised laterally at base, acuminate and truncate at apex; two white patches on the pygidium .. .. *cuspidata.*

Antennal club not much longer than the pedicel, clypeus parallel for two-thirds of the length, incised there and contracted thence into a peduncle expanding at apex into a strongly hamate projection on each side; no white patches on the pygidium .. .. .. *rostrata.*

B¹. Black, with the elytra pale testaceous.

Antennal club much longer than the pedicel; clypeus parallel for two-thirds of the length, incised and contracted thence into a triangular process strongly hamate on each side; no white patches on pygidium *nasuta.*

A[1]. Clypeus moderately long; antennal club also moderately long.

Clypeus not incised laterally .. .. *luridipennis.*

Key to the Species (♀ ♀).

Elytra black.

Clypeus short, quadrate, sharply incised at apex .. .. .. *cuspidata.*

Clypeus long, sub-oblong, deeply sinuate at apex .. .. .. *rostrata.*

Elytra testaceous yellow.

Clypeus long, sub-parallel, truncate at apex, and incised in the centre .. .. *nasuta.*

ISCHNOSTOMA CUSPIDATA, Fabr.,
Ent. Syst., i., 2, p. 129.

♂ *albomarginata*, Herbst., Käf., iii., p. 174, pl. 27, fig. 8.
♂ *erythropus*, Lin., Ed. Gmel., i., 4, p. 1581.
♂ *pica*, McLeay, Illus. Zool. S. Afric., 1849, p. 44, pl. i.
♂ *albomaculata*, Gor. and Perch., Mon. Cét., p. 302, pl. 58, fig. 5.
♂ *tristis*, Sch., Ann. Fr., 1844, p. 393.
♂ *heteroclita*, G. and Perch., Mon. Cét., p. 303, pl. 58, fig. 6.
♂ *rufipes*, Fab., Mant., i., p. 27.
♀ *cordata*, Fabr., Ent. Syst., i., 2, p. 129.
♀ *lundi*, Lin., Ed. Gmel., i., 4, p. 1581.
♀ *nobilis*, Fab., Mant. Ins., i., p. 27.
♀ *spatulipes*, McLeay, Ill. Zool. S. Afric., 1849, p. 44, pl. 1.

Male: Black, opaque, outer margin of prothorax and elytra having a narrow white band; pygidium with two apical, small white patches; clypeus four times as long as the head, strongly and highly carinate above the insertion of the antennæ, and strongly sinuate there, deeply and broadly incised laterally at about one-third of the length, with the lateral basal part of the incision produced into a short longitudinal spine, triangularly ampliated beyond the incision and acuminate thence to the apex where it is truncate and slightly sinuate and as broad there as in the incised part; this is the typical form, but in the lesser development the lateral part of the reflexed margin of the clypeus is only slightly bi-sinuate, and slightly angular at about one-third of the length (*heteroclita*, G. and P.) or only a little longer than broad, merely sinuate and slightly less narrowed towards the

apex (*albomaculata*, G. and P. nec. Herbst. = *tristis*, Sch.); the ocular canthus is horizontal and spiny at apex; the pedicel of antennæ is also very long, and the antennal club longer and laminate, both the clypeus and head are covered with contiguous, elongated, cicatricose punctures; prothorax having a slight, median longitudinal impression in the posterior part, covered with closely set but not contiguous punctures bearing each a minute black setulose hair becoming more bristly towards the sides; scutellum very closely punctate and setulose; elytra plane, with the suture raised behind, and without any traces of costules in the majority of cases, but occasionally also slightly bi- or tri-costulate, faintly punctate, each puncture bearing a setulose black hair; pygidium impunctate, pectus and legs briefly pubescent; the four fore tibiæ are almost glabrous underneath, but the hind ones are very hirtose.

Female: Unknown to me; McLeay has figured the female of this species under the name of *I. spatulipes*. It certainly closely resembles that of *I. rostrata*; the clypeus is much shorter and quadrate, deeply incised in front.

The three developments of the ♂ were taken together and at the same time at Port Elizabeth (Cape Colony); at no great distance from that locality I obtained the typical *albomarginata*, G. and P., in which the part of the clypeus following the lateral incision is slightly shorter and less attenuate towards the apex, and in which the elytra have narrow white lines in the shallow striæ.

Length 15½–20 mm.; width 9–10 mm.

Hab. Cape Colony (Port Elizabeth; Riversdale, Albany).

ISCHNOSTOMA ROSTRATA, Jans.,

Cist. Entom., ii., 1878, p. 299; Aid to Ident. Ins., i., pl. 94.

Male: Black, opaque on the upper side; margins of prothorax and elytra with a white band, clypeus not incised laterally, very long, slightly ampliated laterally, truncate at about two-thirds of its length, with the outer angles of the truncate part prolonged as a long, horizontal spine, thence the clypeus is produced as a strongly compressed carinate very narrow lamina expanding at apex into two narrow mucronate processes somewhat in the shape of an anchor, both the head and the clypeus are rugose and bear even in the narrowed part of the latter long, black, setulose hairs; the antennal club, although very long, is not longer than the pedicel; the ocular canthus is as in the preceding species; the very singular shape of the clypeus varies also a little, and in the smaller development the narrow compressed median process is longer in proportion, and the

outer angles of the truncate part, which is then median, are broadly hamate inwardly; prothorax shaped as in the preceding species, but with the outer angles fitting more against the elytra and hiding thus the greatest part of the mesothoracic epimera which are densely pubescent, covered with deep not closely set punctures bearing each a long, setose black hair; scutellum not punctate; elytra plane, only moderately sinuate laterally, indistinctly bi-costulate, and having faintly seriate, minute, black bristle-like hairs; pygidium glabrous, impunctate and having no white patches; pectus and legs villose, the villose hairs black; mesosternal process distinct, and vertical in front.

Female: More robust than the male, black, with the elytra having a faint reddish tinge, there is no marginal white band on the prothorax or on the elytra; the clypeus is nearly twice as long as the head and is slightly narrower at base than at apex with the outer angles rounded and the anterior part deeply emarginate; head and clypeus deeply punctate; antennal club somewhat long, ovate; prothorax sparsely punctate, the punctures setigerous; elytra plainly ampliated laterally from the median part, indistinctly costulate and punctate; under side almost glabrous, sternal process short, grooved longitudinally; anterior tibiæ tri-dentate, upper hind spur broadly patelliform, racket-like at apex.

Length 17–21 mm.; width $8\frac{1}{2}$–$10\frac{1}{2}$ mm.

Hab. Cape Colony (Fraserburg, Beaufort West).

ISCHNOSTOMA NASUTA, Schaum.,

Plate XLV., fig. 5.

Trans. Entom. Soc., v., 1848, p. 75, pl. 8, fig. 5 ♂;
Bohem., Ins. Caffr., ii., 18, p. 41.

Male: Black, opaque, with the elytra light testaceous yellow; no white marking on the prothorax, elytra, or pygidium; head and prothorax clothed with a long, moderately dense villose flavescent pubescence; clypeus slightly more than twice as long as the head, strongly and broadly constricted laterally a little above the median part, with the basal outer angles of the constricted part sharply hamate dentate; the constricted part which is about one-fourth of the length expands at apex into a triangular process strongly hamate at each end, and from the base of the clypeus to the apex there runs a sharply carinate longitudinal ridge, the ocular canthus is horizontal, but is not sharply acute, both head and clypeus are sub-foveate punctate, but the prothorax and the scutellum are only finely

punctate; elytra plane, slightly sinuate laterally, punctate but with the punctures very shallow and minutely setulose, the two dorsal costules are distinct, and the suture raised, the narrow fold of the elytra is black; under side moderately densely villose, hind legs also villose, the hairs black.

Female: Black, the elytra light testaceous yellow with the marginal fold only narrowly edged with black; body shorter, more robust, prothorax and elytra more convex than in the ♂; clypeus nearly parallel, truncate at apex and incised in the anterior margin which is strongly reflexed and make thus the anterior part look concave; prothorax twice as broad as long, and slightly grooved longitudinally in the centre, moderately sparsely punctured and with the pubescence shorter, and probably obliterated in the only example I have seen; elytra ampliated in the posterior part; more distinctly pitted; pygidium glabrous, plainly convex at apex and having there a marginal fringe of black hairs; legs and pectus hardly hairy; hind thighs robust, terminal part of hind tarsi very broadly dilated; upper hind spur expanded at apex like a tennis racket; anterior tibiæ with two long, strong outer teeth and a smaller but distinct one above the two; antennæ piceous red.

Length 13½–18 mm.; width 7½–8½ mm.

Hab. British Bechuanaland (Ramoutsa).

ISCHNOSTOMA LURIDIPENNIS, Burm.,
Handb. Entomol., iii., 1842, p. 608.

Male: "Clypeus not much longer than the head, anterior margin angularly pointed, no lateral incision before the insertion of antennæ, the rest deepened by a raised margin. Clypeus thickly punctate, hollow, sharply raised and rounded, sharp laterally at end, and having a blunt angular rise in the centre of the anterior margin; prothorax shorter than in the preceding species (*I. cuspidata*), more convex, strongly punctate, slightly grooved longitudinally in the centre, opaque black, like the punctured scutellum; elytra dirty dull yellow, moderately raised, somewhat longer than the preceding species, and having on each side two weak costæ and shallow scattered punctures; pygidium opaque; under side strongly shiny black, punctate and hairy as in the other species; legs also just the same.

Length 5 mm.

Hab. Eastern South Africa."

I have not met with this species.

GARIEP, n. gen.

Mentum sub-parallel, then incised at about the median part, and continued as a ligular part also parallel, as long as the mentum, and deeply sinuate at apex, the condyle is moderately long, sub-lateral, and the labial palpi are thus inserted on the outer face of the mentum, last joint of labial palpi sub-cylindrical and very long; maxillæ not robust, long, inermous, the upper lobe narrow, long, somewhat oblong and surmounted by a very long, dense, not penicillate pubescence, last joint of maxillary palps slightly swollen inwardly at base, sub-truncate at tip, and hardly longer than the ultimate labial one; clypeus very strongly incised laterally above the base, expanding triangularly to the apex which is truncate, twice as broad there as at the base, very plainly tri-sinuate with the angles acute, so deeply concave that the outer anterior side is quite declivous, frontal part with a very high transverse lamina between the antennæ; eyes very large, canthus very hairy and transverse; pedicel of antennæ very long, club still longer lamellate and arcuate (♂); prothorax ampliated laterally from the apex to the slightly rounded basal angle, not sinuate along the base which is slightly arcuate, and does not cover the mesothoracic episterna; scutellum very long and sharply acute at tip; elytra plainly sinuate laterally above the hind coxæ, not attenuate behind, plane; propygidium slightly concave, vertical; mesosternum with a bluntly triangular process between the median coxæ, and separated in the ♂ from the metasternum by a distinct suture; anterior tibiæ bi-dentate outwardly, and with slight traces of a third one, outer terminal part of median ones bi-dentate, hind ones also bi-dentate at apex, but having, unlike the median ones, no traces of a tooth on the upper edge; fore and median tarsi somewhat long and slender, hind ones shorter and slightly compressed, hind spurs (♂) long and sharp, (♀) spatuliform.

I have seen only one female example, which I picked up dead in Namaqualand; it has lost all its pubescence, and is partly bleached, but I have no doubt that it is the female sex of *G. patera;* the clypeus is rounded laterally in front and not sinuate, at its junction with the head there is a small transverse carina; the antennæ are missing; the ligular part of the mentum is not quite so elongated as in the ♂, but the maxillæ are identical; the prothorax is alike; the elytra are more elongated, and plainly ampliated in the posterior part; the pygidium is sub-vertical and convex; the terminal part of the hind tibiæ are dilated, and the upper hind spur, the only one left in my example, strongly spatuliform; the process between the intermediate coxæ has no transverse suture.

The general appearance of this female resembles sufficiently well the figure of *Cetonia pimeloides*, Gor. and Perch. (Mon., pl. 50., fig. 2) to lead me to believe that it will prove to be identical.

The only species included in this genus seems to be crepuscular in its habits, and is one of the rarest in collections of the South African Cetonids.

GARIEP, PATERA, Gor. and Perch.,
Monogr. Cet., 1833, p. 260, pl. 49, fig. 6.

Male: Black, moderately shiny; antennæ rufescent; head and clypeus clothed with a very long flavescent pubescence; prothorax also clothed with a very long flavescent pubescence, closely shagreened and having along the outer margin a somewhat broad, white band; mesothoracic epimera very densely pubescent; scutellum covered with very closely set punctures from which springs a long, appressed pubescence; elytra plane, covered with almost contiguous cicatricose, irregular, nearly coalescing punctures, and having on each side two tectiform discoidal costæ, they are glabrous, and have on each side six white patches disposed transversely along the humeral, the median and the supra-apical parts; pygidium with two broad, white macules; pectus and anterior and median femora clothed with a somewhat dense pubescence; hind tibiæ briefly pubescent.

Female: Black, with the elytra and thighs reddish brown; the hairy coating is lost in my partly bleached specimen; the sculpture of the head and clypeus is like that of the ♂, and the clypeus is divided from the head by a small transverse carina; the elytra, which are also like those of the ♂, retain still a white patch on the juxta-sutural costæ, corresponding to that seen in the ♂.

Length 16–19 mm.; width 9–11 mm.

Hab. Cape Colony (Namaqualand, Calvinia, Willowmore).

GEN. HETEROCLITA, Burm.,
Handb. d. Entom., iii., 1842, p. 604.

Clypeus short, slightly ampliate laterally, plainly narrowed at the base, rounded in the anterior part and arcuately emarginate there, the edges raised all round; mentum very hairy, parallel, elongate, with the ligular portion sinuate at tip; the galea moderately large; last joint of all palps cylindrical, truncate at tip; prothorax very elongate, conspicuously narrowed at apex in the ♂, and one-third broader at the base than long, ampliate and half as long as broad in the ♂, strongly arcuate emarginate above the scutellum; clypeus sharply acuminate; elytra sub-parallel in the ♂, more ampliate

laterally behind and more convex at apex in the ♀ ; pygidium vertical in both sexes ; lateral metasternal process sharply bulging; mesosternal process blunt, not projecting ; anterior tibiæ bi-dentate in the ♂ , tri-dentate in the ♀ ; legs robust, intermediate and posterior tibiæ sharply dentate on the upper edge, tarsi moderately long in the ♂ , shorter and more broadly triangular in the female, basal joint shorter than the second; hind spurs sharp in the ♂ , compressed and thickened in the ♀ .

In the ♂ of this genus, the antennal club is as long and as curved as in the genus *Gariep*, but the shape of the head and of the last joint of palpi is different ; the facies is also different ; the basal joint of the hind tarsi is shorter than the second, and much more sharply angular outwardly in the manner of *Rhinocæta ;* the ♀ is not unlike a ♀ *Ischnostoma*, but the clypeus is similar to that of *Rhinocæta cornuta.*

HETEROCLITA HAWORTHI, Gory and Perch.,
Monogr., p. 265, pl. 51, fig. 2 ♂ .

H. pimeloides, Gor. and Perch., loc. cit., p. 262, pl. 50, fig. 2.

Black, with the elytra testaceous, but with a sutural and marginal narrow infuscate band in the ♂ , testaceous and infuscate in the ♀ ; antennal club chestnut-brown.

Male : Head and prothorax, mesothoracic epimera, pectus and legs clothed with a somewhat dense and long flavescent pubescence ; clypeus and head closely punctate, vertex with a small conical projection ; prothorax sub-triangular, sinuate laterally past the median part, moderately rounded above the metasternal epimera, arcuate above the scutellum which is very long and triangular, and coarsely punctate at base, outer margin serrulate ; elytra glabrous, somewhat elongate, deeply sinuate laterally, plainly bi-costate on each side and having faintly seriate, almost obliterated punctures on the whole surface ; the suture is sub-carinate on the median dorsal part ; pygidium impunctate, apical margin of first segment with a fringe of long hairs.

Female : Head as in the male, but glabrous ; the conical projection on the vertex is blunter ; prothorax glabrous, except along the serrate margin, which is briefly ciliate, ampliated from near the apex to near the median part, nearly straight thence, less straight along the base than in the male, but equally arcuate above the scutellum ; elytra more ampliate rounded laterally in the posterior part, and with the two costules on each side less well defined than in the male ; the punctuation is very slight ; under side less hairy than in the male ; the joints of the tarsi are shorter, the inner hind spur is spatulate at

tip, the antennal club is ovate and shorter than the pedicel, and the third upper tooth of the fore tibiæ is very well defined.

Length 14–15 mm.; width 8–9 mm.

I am indebted to O. E. Janson, Esq., for the loan of the two sexes of this interesting species, but I have not been able to examine the maxillæ. In all probability the female has occasionally quite black elytra, as figured by Gory and Percheron. This figure, however, is very unsatisfactory, but that of the male is fairly accurate. Nothing is known of the habits of this species.

Schaum has described another species, which I have not yet met with.

HETEROCLITA RAEUPERI, Schaum,
Anal. Entom., p. 48;
Burm., Hand. d. Entom., iii., p. 605.

"Black, head and prothorax densely punctate and clothed with greyish flavescent hairs; the scutellum and epimera are similarly hairy; antennæ and palpi reddish yellow; elytra less purely reddish yellow, tolerably opaque, and having the suture, a spot on the shoulders and a stripe up to the end of the terminal callus black, upper surface with regularly scattered punctures, and bi-costate on each side; pygidium yellowish red, opaque, covered with curved striæ, lower margin with yellowish ciliæ; abdomen black, the depressed middle part yellowish; pectus black, striate-rugose and bearing yellow-grey hairs, likewise the posterior coxæ and all the femora, tibiæ and tarsi, which are reddish yellow but with the spinose part of the latter blackish.

Length 6 lines. ♂."

Hab. Port Natal—teste Drège.

Burmeister adds that he saw in Drège's collection 50 examples of males, from which it concludes that the female leads a life other than that of the male, and has a different appearance.

GROUP CERATORRHINII.

In this Group are included large and richly-clad species, in which the sexual differences are strongly marked; in the male the outer angles of the clypeus are sharply dentate, and the centre of the anterior margin is produced into a bi- or trifid horn, varying in size and shape; but in the female the clypeus is sub-parallel and simple; the sternal process is usually very long; the tarsi are long or moderately long, and the basal joint of the hind tarsi is shorter than the second.

GEN. DICRANORRHINA, Burm.,
Handb. d. Entomol., iii., 1842, p. 187.

Mentum as broad as long, greatly ampliate laterally in the centre, ligular part very little depressed in the outer face, deeply, somewhat narrowly notched in the centre, cavity of labial palps very narrow and quite lateral, the outer margin hiding the inner to such an extent that the palps look as if they were inserted in the inner part; maxillæ robust, inner lobe simple, densely fringed with hairs, upper lobe very long, styliform very slightly hooked at the tip, densely hairy along the outer margin; antennal club shorter than the pedicel in both sexes; clypeus of ♂ strongly bi-angulate on each side, and produced in the centre in a curved horn broadly dilated and trifidous at apex, head with a short, sub-porrect horn on each side above the eye; in the ♀ the clypeus is trapezoid, carinate on each side above the somewhat depressed outer margin, slightly emarginate at apex with the angles of the emargination weakly angular; prothorax diagonally ampliated laterally from the apex to about the median part, nearly parallel, but slightly sinuate thence to the moderately rounded basal angle, base very little sinuate on each side, and almost straight above the scutellum; elytra slightly wider than the prothorax at the base, elongate, attenuate behind, being at apex only one-half the width of the base; not sinuate laterally and with the side pieces of the metasternum not visible; pygidium sloping; metasternal process horizontal, triangularly aculeate; anterior tibiæ of ♂ strongly dentate inwardly, merely angular at apex outwardly, fifth joint of anterior tarsi with a thick pencil of hairs underneath; in the ♀ the anterior tibiæ are plainly 3-dentate, and the anterior tarsi glabrous.

The genus is represented on the East and West Coasts of Africa, and a colour variety of the South African species reaches as far north as the Zanzibar mainland.

DICRANORRHINA DERBYANA, Westw.,
Arcan. Entom., i., p. 173, pl. 42, ♂ ♀.

Male: Green with a reddish-golden tinge in the basal part of the prothorax and on the under side, shiny, glabrous, tarsi, and antennæ black; head with the trifid recurved part of the clypeal horn and the two occipital sub-porrect horns black, the rest of the surface is covered with a cretaceous coating; prothorax extremely finely aciculate on the whole surface and bearing also somewhat scattered punctures; the sides have a very broad cretaceous band; scutellum

aciculate and punctate like the scutellum; the elytra have the same aciculation but the punctures are plainer, they each have a white cretaceous band reaching from near the humeral angle to the suture, and ascending there to a very short distance from the apex; pygidium white with the apical margin green; under side aciculate and punctate as on the prothorax; metasternum grooved from the base to the apex of the mesosternal process which is glabrous; anterior tibiæ with 5 or 6 remote conspicuous inner teeth, hind ones without a tooth on the upper side.

Female: Colour of the male but less shiny, especially on the prothorax, the upper part of the head is covered with the same cretaceous coating, except for a median longitudinal black line; the prosternum is broadly, deeply, and very closely punctate, the outer marginal white band is narrower than in the male, the scutellum and elytra are strongly punctate, but not so closely or deeply as on the prothorax; the outer marginal band of the elytra is continued along the suture to one-third of the length, and the punctures on the under side are more numerous than in the male.

Length 29–47 mm.; width 13–22 mm.

This is the typical insect described by Westwood, and procured for the first time by Burton in Rustenburg (Transvaal).

It is this form which occurs in the Transvaal (Lydenburg, Pretoria, Rustenburg, Potchefstroom, Zoutpansberg, Waterberg, Barberton, Pietersburg, Waterval, &c.; also in Natal (Tugela River), Southern Rhodesia (Umtali, Matopos, Salisbury, Mazoe, Enkeldoorn, Sebakwe), and Mozambique (Lourenço-Marquez, Inhambane teste Klug, Beira).

Feeds on *Acacia* gum, but is also found on the wounded branches of a species of *Combretum* (G. A. K. Marshall).

Var. layardi, Pér., pl. xlv., fig. 2, Trans. S. Afric. Phil. Soc. vi., 1892, p. 38.

This variety differs from the type form in having the cretaceous band of the elytra prolonged slantingly in both sexes from the apex of the suture to the base at a point equi-distant from the humeral angle and the scutellum.

This variety, for it can hardly be called otherwise, seems to have a different habitat from that of the type form. The latter is restricted to the Transvaal and parts of Natal, but the variety *layardi* is to be found in Damaraland and Ovampoland; it occurs also on the Zambesi near the Victoria Falls, and it has been recorded from the neighbourhood of Salisbury in Southern Rhodesia. Some males of this variety are considerably larger than any male of the

type form I have met with, but the genitalia do not in the least differ.

Length 26–48 mm ; width 13–23 mm.

VAR. OBERTHURI, Deyr., Bull. Soc. Entom. Franc., 1876, p. lxxxii.

If the type form, and especially the variety *layardi*, seem to have a somewhat restricted range, the same cannot be said of the var. *oberthuri*, which ranges from the Zanzibar mainland to Lourenço-Marquez.

It is quite similar to *D. layardi*, except that it has no white bands on the elytra. But several examples of this species which I have examined exhibit patches, and occasionally traces of such bands. When I add that such examples have been noticed and described under the varietal names of *bifasciata*, Kr., *cyanea*, Kr., *lucida*, Kr., I have shown to what length "splitters" have gone in the determination of *Cetonini*.

Length 33–47 mm.; width 16–22 mm.

My examples from Delagoa Bay are females. Kolbe records this so-called species and the 3 varieties above-mentioned from Usambara, Zanzibar, Dar-es-Salaam, and Bagamoyo in Eastern Africa.

GEN. RANZANIA, Bertol.,
Mem. Ac. Bologn., 1855, p. 420.

Mentum ampliate rounded laterally, ligular part narrower than the mentum and divided by a very deep, straight notch into two parallel lobes truncate at apex, palps cavity very long, deep and broad and quite lateral, the outer face of the cavity is narrower than the inner ; maxillæ robust, inner lobe simple, upper lobe elongated, styliform, slightly hooked inwardly at tip, and very densely penicillate on the upper and outer edge ; head and clypeus of male produced into a long, deeply concave, shovel-like, sub-parallel process slightly broader at apex than at base, curving upwards in the anterior part the margin of which is briefly bi-dentate in the centre, and the angles dentate ; there is a small tooth on each side of the lateral margin at about the median part, and a long, hook-like, sub-vertical one on each side of the base above each eye ; in the female the clypeus is nearly parallel and slightly tri-sinuate in front ; prothorax one-fourth broader than long, and ampliate rounded laterally in the anterior part, the base is very slightly sinuate on each side of the scutellum, but straight above it ; elytra elongated, moderately attenuate towards the apex which is two-thirds of the width of the base ; mesosternal process parallel, truncate at tip ;

anterior tibiæ of ♂ strongly incised and hamate inwardly at the base, and pluri-dentate along the inner part, dentate outwardly at apex, but having underneath a short, tooth-like process, which is not, however, a lateral tooth, fifth joint of anterior tarsi densely pubescent underneath; in the ♀ the anterior tibiæ are strongly tri-dentate outwardly, and the fifth joint of the anterior tarsi glabrous.

This genus consists of one species which seems to be restricted to the South African area, and is replaced in British and German East Africa by another having a similar livery, but included into another genus, or sub-genus (*Mephistis*), owing to some difference in the shape of the armature of the ♂.

RANZANIA PETERSIANA, Klug,

Plate XLV., fig. 1.

Monatsb. Berl. Acad., 1855, p. 660;

Peter's Reis. n. Moss., 1862, p. 262, pl. 15, fig. 7.

splendens, Bertol. Mem. Ac. Bologn. vi., 1855, p. 420, pl. 21, figs. 1–7;

Thoms., Ann. Soc. Ent. Fr., 1856, p. 320, pl. 7, figs. 2–3.

Male: Bright, shiny green, glabrous, under side of clypeus and abdomen with a reddish-golden sheen; antennæ piceous; head and clypeus covered with a chalky-white coating, the basal hooked horns and the outer margins of the clypeus are black; prothorax very faintly aciculate and having on each side of the base a short, narrow, sub-transverse white band, which is probably extending all along the base in some examples; scutellum with two lateral white macules; the elytra are covered with a white coating except the suture which is green like the humeral and supra-apical callus; and on each side of the point of the scutellum there is also a small, sub-quadrate patch of the green background showing; pygidium completely covered by the cretaceous coating; sides of the meta- and meso-sternum cretaceous; under side and legs glabrous; hind tibiæ not dentate.

Female: Green, and with a reddish-golden sheen underneath like the male, but on the upper side less shiny; the head and clypeus are cretaceous white; the prothorax has no white markings and is nearly smooth in the centre only, the sides being distinctly punctured; the scutellum is quite smooth; the elytra have a broad marginal white band ascending the suture at apex and expanding there from the suture to about the median part into a broad, elongate band, the green uncovered part is sprinkled with

minute granules; the white indument of the pygidium is sometimes divided into patches, the under side is more punctulate than in the male, and the punctures on the inner part of the tibiæ are briefly pubescent.

Length 29–32 mm.; width 14–15 mm.

Hab. Southern Rhodesia (Salisbury, Matopos, Manica, Sebakwe); Mozambique (Tette); Transvaal (Pietersburg).

This species feeds on the same plants as *Dicranorrhina derbyana.*

Gen. CHEIROLASIA, Westw.,

Arcan. Entom., i., 1843, p. 178.

Mentum hairy, ampliated laterally, somewhat narrowed at the ligular part which is almost quadrately scooped out in the centre with the apical outer angles moderately rounded, the excavation for the insertion of the labial palpi is greatly elongated, beginning at about one-third of the length of the mentum and reaching the apex, and so wide that it can be said to be supra-lateral, maxillæ long, inner lobe hairy inwardly and ending in a very sharp, strongly falcate tooth, upper lobe short, sharp at tip, and densely penicillate, in the ♀ the upper lobe is longer and ends in a hooked tooth; in the ♂ the anterior angles of the clypeus are produced into a sub-porrect tooth, and the central part into a triangular horn slanting upwards, dilated at tip into a sub-hamate process on each side, this horn is sharply carinate longitudinally in the centre, the carina branching off on each side along the sub-hamate apical process, the head has above the eye a thick laminate, sub-porrect horn diagonally truncate towards the anterior part, the outside part left being produced into a hamate process; in the female the clypeus is sub-parallel with the median part slightly diagonally produced beyond the outer angles and truncate, the anterior margin being slightly raised; antennal club slightly larger than the pedicel in the ♂, equal in length in the ♀; prothorax ampliated laterally from the apex to the base, but not very diagonal in the anterior part, and only slightly sinuate in the posterior, base very little arcuate laterally as well as above the scutellum which is sharply elongate; elytra elongate, attenuate behind, half the width of the base at apex; slightly sinuate on the sides, but with the lateral process visibly exposed; pygidium slightly slanting; prosternal process not projecting much, bluntly and broadly triangular at tip; anterior femora and tibiæ of ♂ densely pubescent inwardly and very faintly tridentate outwardly, the rudiments of teeth, including the apical ones, far apart; apical joint of fore tarsi densely pubescent underneath;

anterior tibiæ of the female sharply tri-dentate, apical joint of the fore tarsi simple, intermediate and posterior tibiæ pubescent inwardly in both sexes, the hind ones plainly dentate on the upper side in both sexes.

This genus includes only one species which ranges from Natal to Mamboia and German East Africa.

CHEIROLASIA BURKEI, Westw.,
Arcan. Entomol., i., 1843, p. 178, pl. 45, fig. 1;
Schaum. Ann. Soc. Ent. Fr., 1849, p. 242, ♀.

hopei, Bert., Nov. Comm. Ac. Bon., x., 1849, p. 424, pl. 10, fig. 2.
histrio, Bat., Entom. Monthl. Mag., 1881, vol. 18, p. 157.

Male: Head and antennæ rufescent, the surface of the clypeus and head with the exception of the horns or aculeate parts is covered with a whitish flavescent coating, and sparsely punctate and pubescent; prothorax black or fuscous black and having on each side a very broad whitish flavescent band notched inwardly past the middle and leaving uncovered a supra marginal, slightly ante-median round, denuded black spot, in the median part of the disk there is a narrow, sub-flavescent line reaching from the apex to about the median part, the black surface of the disk is somewhat opaque and sparsely punctured; scutellum also sparsely punctured, the punctures setigerous; elytra piceous, moderately shiny, sparsely punctate and having on each side three pale flavescent patches disposed longitudinally in the dorsal part, the first one is set at a small distance from the base, the second, the largest of the three, is at about the middle and the third is abutting on the suture, along or close to the outer margin are three patches of the same colour, the first one of which, an elongated one which is occasionally divided into two, is right above the metasternal lateral process, the second is more or less rounded, and the third is situated on the side of the apical elytral callus; the pygidium, which is as a rule reddish at apex, bears two ovate flavescent patches; the abdominal segments have each two transverse flavescent maculæ on each side, the hind coxæ have a similar patch near the lateral edge, and the metasternum is almost completely coated with the same substance, which, however, is sometimes divided into two large patches on each side; on the sides of the red under part of the prothorax there is also a large flavescent macule; the legs are red, and the pectus clothed with moderately dense flavescent hairs.

Female: Like the male. The head is red, except the basal part of the head which is black; the lateral band of the prothorax is

narrower and the anterior lateral denuded patch is connected with the black discoidal part; the punctures on the upper side are setigerous.

Length 18–29 mm. (horns excluded); width 11–14 mm.

Hab. Natal (Durban, Maritzburg, Karkloof); Transvaal (Rustenburg, Pretoria, Lydenburg, Waterberg, Zoutpansberg); Mozambique (Lourenço-Marquez); Southern Rhodesia (Salisbury, Enkeldoorn, Sebakwe, Manica, Mazoe, Bulawayo); Ovampoland; Northern Damaraland.

About Salisbury this species is specially partial to the flowers of a small tree, name unknown; but also occurs on *Cassia* pods; at Bulawayo and Mazoe it is found only on *Acacia* gum (G. A. K. Marshall).

Gen. AMAURODES, Westw.,
Arcan. Entomol., ii., 1844, p. 71.

Mentum broad, as long as the ligular part which is narrower, parallel laterally with the outer angles moderately rounded, and emarginate at apex, the palps cavity reaches from the mentum proper to the apical part, and is very broad and impinges considerably on the outer face, maxillæ robust, inner lobe mucronate in the ♂, and with a long, slender hamate tooth in the ♀; upper lobe styliform, mucronate, not dentate in both sexes; head of ♂ with two hamate teeth on the margin of the vertex, and the outer margin raised into a sharp protuberance above the eyes, the clypeus is broader at the apex than at the base with the outer angles acuminate, and nearly the whole of the anterior margin is produced into a curved horn narrowed at about half its length, and expanding there into a bifurcate process more or less strongly divaricating; in the ♀ the clypeus is simple, carinate laterally, but with the lateral part bulging beyond the upper carina; prothorax of the normal shape, bi-sinuate laterally and only slightly arcuate above the scutellum; elytra elongated, gradually attenuate towards the posterior part; anterior tibiæ uni-dentate at apex in the ♂, set inwardly with numerous sharp teeth, lower edge of outer face of anterior femora densely pubescent in both sexes, but in the ♀ the anterior tibiæ are strongly tri-dentate outwardly and simple inwardly; under side nearly glabrous, sternal process horizontal, arcuately rounded at apex, without any traces of suture, and grooved longitudinally in the basal part only.

The type form of the only species included in this genus seems to be restricted to the South African area, but very slight varieties of the same occur in Central and East Africa.

AMAURODES PASSERINII, Westw.,

Arcan. Entomol. ii., 1844, p. 71, pl. 67, fig. 1, ♂;
Schaum, Ann. Soc. Ent. Fr., 1844, p. 401, pl. xi., fig. 1, ♀;
Bertoloni, Nov. Comm. Acad. Bonon., x., p. 395, pl. viii., fig. 4, ♂.

Male: Black, covered on the upper side of the head and cephalic horns as well as on the prothorax with a muddy grey tomentum with the exception of a moderately broad, median longitudinal velvety black band which reaches from apex to base, and a minute, round, supra-marginal spot of the same colour on each side of the prothorax; the elytra are covered with a velvety black tomentum and have on each side a dorsal row of four round, orange fulvous patches, and a lateral one of five similar but slightly smaller ones; under side black, pectus very sparingly hairy, legs black with the hind tibiæ and tarsi red; the tomentum hides entirely the sculpture of the upper side; the clypeal horn varies much in size (4–8½ mm. in the curve), the bifid process being almost straight in the smaller development and strongly divaricating in the larger, but the two hamate teeth of the vertex and the supra-ocular raised process are equally strongly developed in all the examples that I have seen, irrespective of their size; the lower margin of the pygidium is densely hairy, and the hind tibiæ have a few hairs near the base, and are not dentate on the upper side.

Female: Coloured like the male, but the head has no tomentum, and is black with a median longitudinal red band on the clypeus; the median thoracic black band is broader than in the male, the pygidium is briefly pubescent, and the pubescence along the margin is as long as in the male.

Length 31–40 mm.; width 14–17 mm.

Hab. Natal (Durban, Maritzburg, Lower Tugela); Transvaal (Potchefstroom, Barberton); Mozambique (Lourenço-Marquez, Inhambane); East Central Africa (Usambara, &c.).

In the South African examples the colouration is singularly constant, the lateral denuded macule of the prothorax being, however, almost obliterated in some females, but in examples from East Africa that spot develops into patches, and even in a supra-lateral band reaching from apex to base, and partly or completely connected along the base with the median longitudinal one (Boileau, Bull. Soc. Ent. Fr., 1898, p. 217, c. fig.; Kraatz, D. E. Z., 1896, p. 349).

About Durban this species feeds chiefly on the gum of the "flat-crown" (*Albizzia fastigiata*).

GEN. EUDICELLA, White,
Ann. and Mag. Nat. Hist., 1839, p. 34.

Mentum ampliate-rounded laterally, slightly narrower at the ligular part the anterior margin of which is rounded and very deeply notched in the centre, palps cavity very broad and long, upper face considerably narrower than the inner, maxillæ robust, inner lobe sharply angular at tip in the ♂, but with a sharp incurved tooth in the ♀ and densely pubescent inwardly in both, upper lobe long, styliform sharp at tip but not hooked, in either sex thickly penicillate; clypeus of the ♂ produced laterally in front into two moderately long, almost erect sub-triangular teeth, the centre of the anterior margin is developed into a long incurved horn ending into a bifurcate divaricating process of variable length; in the ♀ the clypeus is simple, somewhat short, slightly wider at apex than at base and very weakly sinuate in the anterior margin; prothorax, sub-diagonally ampliate-rounded from the apex to about the median part, sub-parallel there, weakly sinuate along the base on each side of the scutellum, but almost straight above it; scutellum normal; elytra elongated, plainly attenuated behind, being only across the apex not more than half the width of the base; metasternal process horizontal, triangularly aculeate, the metasternal separated from the mesosternal by a suture; anterior tibiæ bi-dentate outwardly and with a strong serration inwardly in the ♂, tri-dentate outwardly and simple inwardly in the ♀; fifth joint of anterior tarsi glabrous in both sexes.

The genus is represented in Africa by several species and numerous varieties.

Key to the Species.

A². Head glabrous.
Prothorax closely shagreened, greenish bronze, somewhat opaque in both sexes; elytra straw-colour, suture and the two patches on each side black, the latter small .. .. *smithi.*

Prothorax finely aciculate, bright green with a golden tinge; elytra yellowish green, suture green, hind maculæ much larger than in *smithi* .. .. *trimeni.*

A¹. Head pubescent.
Elytra without any patches .. .. *carmelita.*

EUDICELLA SMITHI, McLeay,
Illust. Zool. S. Afric., p. 34, pl. 1.

Var. *euthalia*, Bat., Ent. M. Mag., vol. xviii., 1881, p. 156.
Var. *hereroensis*, Kraatz, Deuts. Ent. Zeitschr., 1900, p. 416.

Male: Clypeus and horns, under part of the prothorax and legs

rufescent, prothorax and scutellum bronze-green or light bronze; elytra straw-colour or flavescent, with the suture, the edge of the outer margin and a humeral and a supra-apical patch of moderate size on each side black, under side greenish bronze, the pygidium, the sternal process, and the two apical abdominal segments are somewhat rufescent; antennal club rufescent; head deeply pitted; clypeus excavated with the sides produced on each side at apex into a recurved tooth, while the anterior margin is continued as a curved stalk diverging into a long, bifurcate divaricating process; this horn varies in length from 4 to 12 mm. in the curve; prothorax closely shagreened, the edge of the margin is reddish; scutellum closely aciculate; elytra very closely aciculate and having also several rows of round, not deep punctures; pygidium closely aciculate; abdomen glabrous, pectus sparsely and briefly hairy, deeply punctate on the sides, sternal process grooved, smooth, the mesosternal part divided by a faint suture; anterior coxæ and margin of the outer face of the anterior femora densely ciliate, anterior tibiæ sharply denticulate inwardly, bi-dentate outwardly, and glabrous, intermediate and hind legs also glabrous, hind tibiæ without a tooth on the upper edge.

Female: Head and clypeus simple, the latter with the angles moderately rounded, and both deeply and somewhat closely pitted; the prothorax is much more deeply pitted than in the male, and the intervals between the punctures are aciculate; the lateral punctures of the scutellum and the seriate rows of punctures on the elytra are much more distinct; the outer face of the marginal part of the anterior femora is as densely ciliate as in the male, and the fore tibiæ are sharply tri-dentate outwardly.

In the examples from Natal the prothorax is occasionally dull dark green, and the elytra of a lighter straw-colour than in examples from the Northern Transvaal and Southern Rhodesia. Yet I have received from Manica specimens with brighter green thorax and light elytra, but among them were examples of the normal hue. It is a somewhat similar light-coloured variety from Damaraland that Kraatz described under the name of *E. hereroensis*.

North of the South African limit (Mamboia, Usambara, &c.) the type form is replaced by the variety *euthalia*, Bat., which differs from it in the colour of the elytra being of a rufescent yellowish hue with a tinge of green, the suture is narrow and green, and the apical elytral patch is narrowly edged with green. The variety penetrates also in the South African area, as it has been recorded from Melsetter in Southern Rhodesia, but the solitary example which I saw is still nearer to the light variety of the type form than to my

examples of *euthalia* from Mamboia. The genital organs of the type form and of the varieties are absolutely alike.

Length 24–35 mm. (horns excl.); width 14–19 mm.

Hab. Natal (Durban, Tugela River); Transvaal (Potchefstroom); Southern Rhodesia (Salisbury, Melsetter, Manica).

Feed on *Acacia* gum, but is also found on the wounded branches of a species of *Combretum;* has never been seen on flowers; about Durban it feeds on the gum of *Albizzia fastigiata.* The var. *euthalia* is found on flowers of *Protea* (G. A. K. Marshall).

EUDICELLA CARMELITA, Fairm.,
Bull. Soc. Ent. Fr., 1894, p. lxxxvi.

Fairmaire has described, loc. cit., a species the habitat of which is unknown, but that he considers to be South African, and which, from the description, appears to be very closely allied to *E. smithi.* The upper side is chestnut-red, opaque; the head and the anterior margin of the prothorax are clothed with a dense white-greyish pubescence; the suture of the elytra is vaguely infuscate, and each elytron has a very narrow marginal fuscous line which disappears before the apex; the pygidium is fuscous with two testaceous macules. In the male—the only sex known—the clypeus is armed with a moderately strong and moderately elongate horn bare at the tip which is bifid, and the cephalic lateral horns are moderately short and little diverging.

The main distinctive characters of this species would thus seem to be the pubescence on the head and clypeus, except the apex of the clypeal horn which is bare, and on the anterior margin of the prothorax, also the absence of dark patches on the elytra.

I doubt, however, if this insect inhabits the South African area, except on its confines.

Length 32 mm.

EUDICELLA TRIMENI, Jans.,
Cist. Entomol., iii., 1884, p. 103;
Waterh., Aid., 1890, ii. pl. 182, fig. 1, ♀.

E. chloë, Raffr., Ann. Soc. Ent. Fr., 1885, p. 33.

Bright golden-green, extremely shiny, prothorax and elytra looking almost flavescent; in the male the clypeus and cephalic horns are dark chestnut-brown, the elytra in both sexes have a very broad dark bottle-green border invading the humeral greenish-black humeral patch; this border is continued as a moderately narrow lighter green band along the suture, and outwardly as an

equally broad but darker marginal band as far as about the median part, whence it is continued as a narrow line as far as the suture, the apical patch is very broad and greenish black; in one ♂ example there is a dark discoidal band uniting the humeral and supra-apical patches, but narrower than the posterior; tarsi and legs piceous.

Male: Head punctulate; clypeus impunctate, outer angles produced each in a moderately long, almost vertical horn, and the centre of the anterior part into a curved horn, bifid at the top, but the bifid process is not divaricating much; the length of that horn varies from 2 to 7 mm. in the large development, and the shape is very much like that of *E. smithi*, but the curve of the central clypeal horn is stronger; prothorax and elytra finely aciculate punctulate except for a series of punctures along the suture and the outer margin; pygidium concolorous, finely aciculate; under side very weakly punctulate on the pectus, each puncture briefly setigerous; sternal process grooved from the base to the mesosternal suture, and impunctate; legs as in *E. smithi*, but with a plain, although small, tooth on the upper edge of the hind tibiæ.

Female: Shape like the female of *E. smithi;* the head is not so deeply punctate, and the punctures on the sides of the prothorax are small, and not rugose, those on the elytra are similarly fine and not set more closely; the under side is more deeply punctate than in the male.

Length 28–38½ mm.; width 15–19½ mm.

Hab. Natal (Tugela River, Karkloof).

There seems to be no doubt that *E. chloë*, Raff., is identical with *E. trimeni*, and Raffray himself told me so when he was shown an example captured by A. F. Millar in Natal. The rarity of this insect in South Africa is probably due to it being a straggler from the north. Raffray captured his examples in the Bogos province of Abyssinia.

Gen. NEPTUNIDES, J. Thoms.,

Bull. Soc. Entom. Fr., ix., 1879, p. 106.

Mentum ampliated and rounded laterally, ligular part narrower than the mentum, parallel, very deeply triangularly notched, palps cavity very long and broad; both the lobes of maxillæ mucronate but not hamate in either sex; antennal club of ♂ a little shorter than the whole pedicel; in the ♂ the clypeus is broadly triangularly dilated from the base to the apex where the outer angles are produced into a long, somewhat reflexed mucronate point, and the central part into an erect horn moderately dilated at apex, the

head is simple; in the ♀ the head is simple, the clypeus carinate laterally with the sides bulging a little beyond the carina, and the apex is bluntly sub-dentate in the centre; prothorax sub-trapezoidal, with the base slightly bi-sinuate on each side of the scutellum, and somewhat arcuate above it; elytra elongate, attenuate behind where they are only half the width of the base; sternal process bluntly arcuate at the end and with a sub-apical transverse suture; anterior tibiæ of ♂ laminate inwardly and having a deep notch at the base, tri- or quadri-dentate near the apex and with the apical tooth conspicuously triangular, weakly bi-dentate outwardly, the upper tooth is very remote from the apical one; inner part of anterior femora sparingly pubescent, the apical part provided with a strong hamate tooth; hind tibiæ moderately densely pubescent inwardly and not dentate on the upper side; in the ♀ the anterior tibiæ are strongly tri-dentate outwardly; the inner part is also laminate and notched at the base, and the anterior femora hamate at apex, but less conspicuously than in the ♂.

The genus includes two species, one of which is a denizen of East and Central Africa, but it reaches also the South African area, and is so variable in colouring that no less than six varieties have been described. The other species is recorded from the Congo.

The shape of the mentum greatly resembles that of *Cœlorrhina*, Burm., but the palps cavity is wider, and apart from the differences in the sexual characters of the males of both genera, that of the sternal process is sufficient to separate the two.

Neptunides polychrous, J. Thoms.,

Plate XLV., fig. 4.

Bull. Soc. Ent. Fr., 1879, p. 106.

Var. *abundans*, Thoms., loc. cit.
fasciicollis, Thoms., loc. cit.
laeta, Kolb., Käf., D. Ost, Afrik., 1897, p. 181.
lineaticollis, Kraatz, Deut. Ent. Zeits., 1881, p. 258.
marginicollis, Kraatz, loc. cit., p. 258.
purpurascens, Thoms., Bull. Soc. Ent. Fr., 1879, p. 106.

Male: Bright metallic green with the prothorax black and the elytra green, flavescent green or coppery-green, the margins of the dentate lateral processes of the clypeus and the median horn are black, the head is broadly excavated to a short distance from the base, and punctulate laterally above the eyes only, the whole clypeal surface being smooth; the prothorax and scutellum are also impunc-

tate; the elytra are not costulate but the supra-lateral elevation delimitating the dorsal part is plain, they are most sparsely and finely aciculate, the colour is very variable, the shiny green or yellow predominating according to the direction of the light falling upon them; pygidium with transverse punctures, under side glabrous except for a few hairs on the sides of the pectus, and on the inner face of the sternal process; inner face of outer part of anterior femora moderately pubescent; inner part of tibiæ and also the knees somewhat infuscate. The colouration of the prothorax is extremely variable, it may be totally green with a supra-lateral anterior black patch, and two median elongated ones broader at apex than at base; coppery green with a supra-lateral black patch and three comma-shaped ones disposed longitudinally on each side of the median part; the whole disk may be black with a coppery border, or entirely green without traces of black markings.

Female: Coloured like the male, but the piceous black thorax has a broad greenish flavescent lateral margin, and a median longitudinal band of the same colour which reaches from the apex to the base or not; the head and clypeus are almost foveolate punctate, and some fine punctures are discernible on the prothorax; the scutellum, however, is impunctate, and the elytra bear series of aciculate punctures almost obliterated in the posterior part but more distinct on the sides; the sculpture of the legs and under side is rougher than in the male.

Length 27–30 mm. (horns excl.), width 13–14 mm.

Hab. Southern Rhodesia (Manica, Gazaland, Mt. Chirinda).

It is said by Mr. G. A. K. Marshall to attack pineapples.

Gen. CŒLORRHINA, Burm.,

Handb. d. Entomol., vol. iii., 1842, p. 207.

Mentum ampliate and rounded laterally, ligular part narrower than the mentum, nearly parallel but with the palps cavity only moderately wide, the inner maxillary lobe is hamate in both sexes, much more sharply in the ♀ than in the ♂, but the styliform upper one is slightly hamate in that sex only, that of the ♂ being sharply mucronate; antennæ shorter than the pedicel; in the ♂ the head is hollowed from the base the margin of which bears a short, bifid median process or two contiguous horizontal teeth, to the apex, the sides of the head, which is hollowed from the base, are parallel with the apical angles bluntly rounded but projecting very distinctly beyond the anterior margin of the clypeus, the centre of which is produced into a more or less incurved horn

dilated at apex into a strongly triangularly divergent, bluntly furcate, thick process, carinate across the diverging parts and longitudinally along the basal part of the horn, which varies in length from 1 to 3 mm.; in the small development the short anterior horn is very considerably reduced, being little more than 1 mm. in length, the head is excavated only as far back as the eyes and deeply emarginate in the centre instead of being bi-dentate; in the ♀ the head and clypeus are not excavate, the latter is narrowed at the base and slightly rounded laterally, the anterior margin is plainly sinuate in the centre; prothorax of the usual shape, but slightly more trapezoidal in the ♀ than in the ♂, arcuate on each side of the scutellum, and equally so above it; elytra elongated, attenuate towards the apex in the usual manner; anterior tibiæ of ♂ dentate outwardly at apex only, and simple inwardly, those of the ♀ sharply tri-dentate, sternal process grooved from the base to a distinct suture separating the metasternal from the mesosternal, the latter short, bluntly triangular with the apical part slightly reflexed.

The genus includes one species having many (so-called) varieties, and which ranges west and east from Senegambia to Southern Rhodesia.

CŒLORRHINA QUADRIMACULATA, Fabr.,

Plates XLV., fig. 3; XLVII., fig. 15.

Spec. Ins., i., p. 56, ♂;

Gory and Perch., Mon., p. 131, pl. 19, fig. 4;

Bates, Trans. Ent. Soc., Lond., 1879, pl. 1, figs. 3, *a*, *b*, ♂.

Var. *loricata*, Jans., Cist. Entom., ii., 1877, p. 141.

furcata, Kolbe, Berl. Ent. Zeits., 1884, p. 83.

glabrata, Kolbe, loc. cit., p. 81.

imitatrix, Kolbe, loc. cit., p. 35, fig. 6.

nyassica, Kraatz, Deuts. Ent. Zeits., 1900, p. 366.

oberthuri, Kraatz, loc. cit., p. 367.

poggei, Kolbe, Ber. Cet. Ent. Zeits., 1884, p. 84, figs. 3, 4, 5.

radei, Kolbe, loc. cit., p. 82, figs. 1, 2.

ruficeps, Kolbe, loc. cit., p. 83.

Var. *hornimani*, Bat., Trans. Ent. Soc., 1877, p. 202, loc. cit., 1879, pl. 1, figs. 3, *a*, *b*, ♂.

grandyi, Bat., loc. cit., 1877, p. 202.

Male: Clypeus, horn, and excavated part of the head red, or reddish with a slight greenish tinge, the marginal part of the head green, rufescent green, or occasionally flavescent; prothorax and

scutellum bluish green, quite green or golden flavescent; elytra flavous with a greenish tinge especially noticeable in the dorsal part, or completely golden-yellow, the suture is plainly green, and on each side are a humeral and a supra-apical greenish black or dark green round patches; under side greenish blue, or green with often a slight reddish tinge; legs seldom completely red, but occasionally completely green; antennæ and palpi chestnut-brown head and clypeus finely aciculate, the latter punctate above the eyes; prothorax finely aciculate, plainly punctate, the punctures somewhat remote and equi-distant but almost absent in the median longitudinal part; scutellum with only a few, almost obliterated punctures; elytra numerously punctate, with the punctures seriate; pygidium reddish or green, and somewhat indistinctly transversely plicate, outer part of tibiæ plicate and punctate; under side well-nigh glabrous except the inner face of the mesosternal process, and the margin of the inner face of the anterior femora; inner part of hind tibiæ moderately hairy only from the base to the median part, upper part not dentate.

Female: Coloured like the ♂, except that the simple clypeus is reddish on the sides and on the extremity only, and even sometimes nearly completely green, the whole head is somewhat coarsely punctate, and the punctuation of the prothorax, scutellum, and elytra is similar to that of the male, but slightly deeper; the pygidium is more plainly plicate, and the pectus very deeply punctate and briefly pubescent.

Bates has given a figure of *C. quadrimaculata* ♂. In that figure the two median teeth of the head instead of being set close to each other are broadly separated, being almost equidistant from the centre of the occipital excavation and from the outer wall. In *C. lorigera*, Jans., these two teeth are contiguous and median; they are also median and somewhat longer in the great development of *C. hornimani*, but broadly emarginate with the angles of the emargination very remote, and thus approximating *C. quadrimaculata* in the minor development, which I take to be *C. grandyi* of the same author; *C. hornimani* has greener elytra than *C. lorigera*, with a distinct longitudinal deeper green band reaching from the humeral to the supra-apical callus. As for the numerous species described by Kolbe, Kraatz, himself, whom no one will take to be a "lumper," gives it as his view that *C. glabrata*, *radei*, *furcata*, *ruficeps*, *poggei*, and *imitatrix* are one species. I entirely agree with him with regard to *furcata*, *ruficeps*, and *imitatrix*, the authenticated examples of which are synonymous with *lorigera*, Jans., and this is corroborated by the genitalia of the

♂ which are absolutely similar in all those varieties, with those of *hornimani*. I have not, however, been able to obtain an assumed typical *C. quadrimaculata*, as figured by Bates, but if its genitalia differ, which I doubt, then *C. lorigera*, Jans., would stand as the type form of all the varieties here mentioned.

Length 23–30 mm.; width 10–13½ mm.

Hab. Southern Rhodesia (Manica, Salisbury; ? Victoria Falls; Sebakwe, Umtali, Matopos, Mazoe), Nyassaland; Angola; Cameroons, Congo; Dieli, Senegal, &c., &c.

Feeds on gum of *Acacia* and *Combretum*, on pods of *Cassia*, and on flowers of *Protea*.

Gen. STEPHANORRHINA, Burm.,

Handb. d. Entom., iii., 1842, p. 208.

Mentum broad at the base, ligular part with almost the whole of the anterior part broadly incised and the outer angles rounded, the palps cavity extremely wide, maxillæ moderately robust, inner lobe inermous, upper lobe elongated, not hooked, both densely hairy; head of ♂ with a T-shaped vertical frontal horn (*guttata*), or an horizontal lamina (*simplex*), clypeus parallel, the sides dentate in front at about one-third or sometimes half the length, the anterior part is notched in the centre, and produced on each side of the notch into a more or less highly raised vertical horn or highly reflexed lamina; head and clypeus simple in the ♀, the latter sinuate in front; antennal club shorter than the pedicel in either sex; prothorax of the usual shape; scutellum sharply acuminate; elytra elongated, attenuate behind; sternal process laminiform, triangularly acuminate, slightly recurved at tip; grooved longitudinally, and with a plain mesothoracic suture; anterior tibiæ dentate at apex only in the ♂, tri-dentate in the ♀, inner part of all the tibiæ pubescent.

This genus is represented in West, Central, and East Africa.

Stephanorrhina simplex, n. sp.

Plate XLVII., figs. 1, 1*a*.

Male: Metallic green with a slight flavescent tinge on the head and prothorax, the latter has two darker green discoidal round patches; elytra greener along the suture, the base, and the posterior part than on the rest of the surface which has a slightly amethystine tinge, and completely concolorous; under side and legs greenish flavescent; head with a somewhat broad, laminiform, slightly

tectate, porrect process lightly emarginate at apex, beginning at the anterior part of the head and overhanging the base of the clypeus which is carinate longitudinally in the centre, the sides are highly carinate, the carina truncate at about the median part with the apex of the truncate part sharp, the anterior margin is produced into a high vertical wall truncate at apex and broadly scooped in a **V**-shape in the centre, the clypeus is sparsely pubescent; prothorax moderately closely punctate on the sides but not in the centre; scutellum very sharp, and bearing a few aciculate punctures; elytra non-costate, and somewhat closely punctate all over, the punctures are nearly round, and moderately deep; pygidium strigillate; under side sparingly pubescent on the pectus, glabrous on the abdomen, and the strigillate legs; sternal process closely punctate.

This species differs from the typical *Stephanorrhina* (*guttata; princeps, adelpha*, &c.) in having concolorous elytra; the shape of the head of the male is also very different owing to the absence of anterior clypeal vertical horns, and the presence of an horizontal frontal lamina instead of an erect **T**-shaped cephalic horn. The genital armature of the male differs slightly only from that of *S. guttata*. Female unknown.

Length 26 mm.; width 10½ mm.

Hab. Southern Rhodesia (Gazaland).

Group HETERORRHINII.

In this group the sexual differences, when they exist, are not so strongly manifest as in the *Ceratorrhinii;* the clypeus in the ♂ when differing from that of the ♀ is sub-parallel, and the centre of the anterior margin is produced into a bi- or tri-fid horn, occasionally reflexed and laminate; the sternal process is usually long, but also occasionally aculeate only.

Gen. ECCOPTOCNEMIS, Kraatz,

Deuts. Entom. Zeitschr., 1880, p. 150.

Mentum hairy, very little ampliated laterally, hardly broader than the ligular part which is broadly emarginate at apex; maxillæ robust, inner lobe simple, upper one broad, laminate, concave inwardly and truncate at apex; head and clypeus simple in both sexes, the latter sub-parallel, deeply emarginate in front, antennal club as long as the pedicel; prothorax of the usual trapezoid form, sinuate on each side of the base and arcuate above the scutellum which is long, sharp, and grooved on each side; elytra elongated,

attenuate behind; mesosternal process short, either orbicular or bluntly sub-arcuate (*thoreyi*), and separated from the metasternal by a fine suture; anterior tibiæ sharply bi-dentate in the ♂, tri-dentate in the ♀; hind femora greatly developed in both, those of the ♂ strongly dentate inwardly at apex, intermediate and posterior tibiæ densely fringed inwardly with light fulvous hairs, the latter strongly dentate outwardly on the upper side in both sexes.

The genus is represented in Western, Central, and Eastern Africa.

Key to the Species.

Body and legs green or greenish-blue; prothorax distinctly punctate laterally .. .. *barthi.*

Body piceous red, elytra greenish blue with the suture black; prothorax finely shagreened laterally .. .. *relucens.*

ECCOPTOCNEMIS BARTHI, Har.,

Plate XLVII., fig. 16.

Mitt., Münch. Ent. Ver., ii., 1878, p. 102.

Bright green, with occasionally a faint yellowish tinge in the dorsal part of the elytra; this green hue is, however, apt to turn bluish; antennæ chestnut-brown; head moderately closely punctate, the punctures deeper in the anterior part; prothorax very little punctate in the central part where there is a median impunctate longitudinal space, more densely and also more deeply on the sides where the punctures are separated by a space equal to twice their own diameter, this punctuation is the same in either sex; scutellum almost impunctate; elytra non-costate, plainly denticulate at the apex of the suture, very faintly punctulate in the male but more distinctly so in the female, especially in the dorsal part where the fine punctures are seriate; pygidium transversely strigillate in the female, but with transverse punctures in the male; under side glabrous, except on the anterior coxæ and also on the outer face of the mentum; the abdomen is almost impunctate, but the pectus is punctulate and the legs deeply punctate and plicate.

This handsome species was first described from the Guinea Hinterland. It does not seem to have been met with in the South African area further south than Rhodesia, but it is said to occur also at Beira. It bears a great resemblance to *E. thoreyi* from the West Coast, and to *E. latipes* from West Central Africa, but the genital armature of the male is very different from that of these two species, as also from that of *E. relucens*.

Length 27–29 mm.; width 13 mm.

Hab. Southern Rhodesia (Salisbury, Mazoe).

Feeds on *Acacia* gum, or wounded branches of other trees.

Eccoptocnemis relucens, Bates,

Plate XLVII., fig. 17.

Entom. Magaz., xviii., 1880, p. 157.

Male: Head, prothorax, scutellum black, tibiæ very dark red, almost piceous; elytra green with a strong bluish tinge, under side and tibiæ dark chestnut-red; antennæ piceous; in the general build and outline this species closely resembles *E. barthi*, and were it not for the punctuation of the prothorax, and the great dissimilarity of the genital armature of the male, this very distinct species might be easily mistaken for a colour variety of the same. The prothorax, however, is most finely and closely shagreened except along the median longitudinal part, instead of being plainly punctate laterally; the finely alutaceous elytra have no traces of punctures, and the suture is distinctly black; the sub-rufescent pygidium is closely and finely plicate longitudinally; the hind tibiæ are glabrous inwardly, the inner sinuate ridge is much more raised, and the space between it and the upper edge much more deeply grooved than in *E. barthi*.

Female differs from the male merely in having the anterior tibiæ tri-dentate outwardly, and the hind tibiæ of normal shape. The sculpture is the same as in the male.

Hab. Mozambique (Beira). The species was originally described from Mamboia and Mwapwa in German East Africa.

Length 25–30 mm.; width 12–15 mm.

Gen. SCYTHROPESTHES, Kraatz,

Entom. Monatsbl., ii., 1880, p. 29.

Anisorrhina, Westw.

Genyodonta (part), Burm.

Mentum very little ampliated laterally with the ligular part as broad as the mentum, the outer angles are obtusely rounded, and the anterior part broadly and very deeply emarginate in the centre, palps cavity long, broadly open, outer face of mentum and ligula clothed with long almost bristle-like hairs; maxillæ somewhat robust, inner lobe simple, upper lobe, short, transverse, also simple and surmounted by a very thick and long brush of hairs; head simple in both sexes, clypeus more deeply incised in front of the antennæ

in the ♂ than in the ♀; antennal club not quite as long as the pedicel in the ♂; prothorax sub-trapezoidal, sinuate on each side of the scutellum and arcuate above it; scutellum long, sharp, grooved laterally in the posterior half; elytra elongated, but slightly attenuated behind where they are at apex not less than two-thirds the width of the base; anterior tibiæ tri-dentate in both sexes, although the superior tooth is very weakly indicated in the ♂, all pubescent inwardly in both sexes, but, of course, much more briefly so in the anterior tibiæ, hind ones plainly dentate on the upper side in either sex; sternal cavity not projecting much but triangularly aculeate, grooved for nearly all the length and without a mesosternal transverse suture.

The genus seems restricted to South Africa.

SCYTHROPESTHES BICOLOR, Burm.,

Handb. d. Entom., iii., 1842, p. 238;

Westw., Arc. Entom., ii., p. 186, pl. 46, fig. 5, ♀.

Black, very shiny, elytra with a rufescent patch extending from one humeral callus to the other, and reaching the middle but not invading the supra-lateral part; head and clypeus sparingly punctate, the punctures small, but deep; prothorax very sparingly punctulate in the male, while in the female the punctures are more numerous and deep on the sides; scutellum impunctate; elytra also impunctate, except for a somewhat indistinct juxta-sutural row in the male, but bearing a few remote minute punctures in the anterior part in the female, and non-costate in both; pygidium transversely plicate; abdomen very sparsely punctate; pectus foveolate punctate, sternal process grooved to a short distance from the apex; inner part of intermediate and posterior tibiæ clothed with a long, dense, black pubescence.

This species seems to be rare where it occurs, and its habitat very restricted.

Length 21–23 mm.; width 10–12 mm.

Hab. Cape Colony (Seymour). Natal (Karkloof).

INHAMBANE, n. gen.

Closely allied to *Melinesthes* and *Genyodonta;* clypeus simple, very long, quite parallel laterally, and emarginate in the centre of the anterior part, in both sexes; antennal club as long as the pedicel in the ♂; prothorax as in *Melinesthes*, but a little more elongated and slightly narrower in the anterior part; scutellum grooved on each side; elytra elongated, one-third narrower across the apex than

across the base; posternal process triangular, sharp at apex, slanting slightly downwards; anterior tibiæ slender, dentate outwardly at the apex only, and not sinuate above the apical tooth in the ♂, bi-dentate in the ♀.

I have not been able to examine the maxillæ of the type (♂), which belongs to Mr. O. E. Janson, who described it as a species of *Melinesthes*. Its nearest ally is, however, *Genyodonta*, but it differs from both in the shape of the posternal process, which is triangularly aculeate instead of being long and curved upwards as in the two genera above mentioned.

INHAMBANA SERRIPES, Jans.,
Cist. Entomol., iii., 1885, p. 142.

Male: Head, prothorax, scutellum, under side, and legs brick-red, on the prothorax are two large posteriorly dilated longitudinal black bands, and a somewhat indistinct black spot on each side of the scutellum; elytra elongated, straw-yellow with the suture and apical margins moderately broadly dark chestnut-brown, the lateral margin is also narrowly chestnut-brown, and the humeral callus, as well as the edge of the base, is of the same colour; head simple, slightly impressed longitudinally on each side for nearly all the length, closely punctate and glabrous; the whole surface of the prothorax is also very closely pitted, and so is the anterior part of the scutellum; elytra not distinctly costulate, but having on each side two longitudinal dorsal impressions the sides of which simulate faint costules, they are finely and moderately punctate, some of the punctures are plainly seriate in the dorsal part, and the suture is raised behind; abdomen and pectus punctate, with the sides of the pectus very briefly pubescent; legs slender, very coarsely punctured, anterior tibiæ with one apical tooth, inner edge of anterior femora briefly pubescent, that of all the tarsi somewhat briefly and not densely hairy, the hind ones strongly serrate, the teeth sharper and slightly hamate towards the knee.

Female: The female differs in being of a rather larger and broader form, more strongly punctured, with the club of the antennæ a little shorter, and the abdomen convex in the centre; the legs are shorter and stouter, the anterior tibiæ broader and provided with two lateral teeth, the inner side of the hind tibiæ is not serrate.

The serration of the hind tibiæ in the male is not peculiar to this species, it is found also, although in a lesser degree, in *Genyodonta* var. *egregia*, Boh.

Length 25–27 mm.

Hab. Mozambique (Inhambane).

GEN. MELINESTHES, Kraatz,
Ent. Monatsbl., xii., 1880, p. 24.

Mentum broadly scooped laterally for the insertion of the palpi, deeply and broadly emarginate in front; maxillæ robust, inner lobe ending in a long, hamate tooth, upper lobe very small and produced in two sharply hamate teeth; antennal club slightly longer than the pedicel in the ♂, equal in length in the ♀; clypeus simple in both sexes, or with two more or less parallel, porrect horns in the male; prothorax diagonally ampliated laterally from apex to base, and slightly sinuate past the middle, base slightly slanting and arcuate above the scutellum which is grooved on each side; elytra elongated, narrower at apex than at base; mesosternum produced into a long, sharp process, curving more or less strongly upwards and slightly pubescent at tip; anterior tibiæ uni- or bi-dentate in the ♂, bi- or tri-dentate in the ♀; all the tibiæ fringed inwardly with somewhat long hairs.

Of the 7 species included in this genus one must be removed from it (*serripes*); one falls into synonomy (*calvipes*), a third can only be regarded as a varietal form (*flavipennis*), and the differences between two (*umbonata* and *exilis*) are so small, that I feel somewhat diffident in considering them as distinct species; the seventh occurs in British East Africa.

Key to the Species.

A². Clypeus simple in the male.

B². Frontal part of both sexes pubescent.

Mesosternal process very long, curved and impunctate .. *umbonata.*

Mesosternal process moderately long, closely punctate at base *exilis.*

A¹. Clypeus with two porrect horns in the ♂.

B¹. Frontal part glabrous in both sexes.

Clypeal horns of ♂ diverging, and broadly dilated singly at apex .. .. *algoensis.*

Clypeal horns of ♂ parallel and with the apical part curved upwards like a hook .. .. *hamula.*

MELINESTHES UMBONATA, Gor. and Perch.,
Monogr., p. 141, pl. 22, fig. 1.

Var. *atricollis*, Jans., Cist. Entom., iii., 1885, p. 139.

Var. *vitticollis*, Kraatz, Entom. Monatsb., ii., 1880, p. 24.

Head, with the exception of the apical part of the clypeus, the greatest part of the surface of the prothorax, and the under side

black, with exception of the two last apical abdominal segments which are red like the anterior part of the clypeus, the lateral margin of the thorax, the pygidium, and the legs; elytra flavous with the somewhat broad suture, the marginal fold and a humeral patch fuscous or black; antennæ reddish; clypeus slightly broader than long, somewhat strangulate at base, the anterior border is plainly reflexed, broadly emarginate in the centre, faintly bi-impressed longitudinally, and closely punctulate, vertex clothed in both sexes with a dense flavescent pubescence; this pubescence is often partly or wholly obliterated; prothorax glabrous, shiny, closely punctulate especially on the sides; scutellum impunctate; elytra shiny, very weakly punctulate, and having on each side two thin, somewhat faint costules; pygidium finely transversely plicate; abdominal segments with scattered punctures; sternum coarsely scabrose punctate, scarcely hairy except on the fore thighs, mesosternum grooved longitudinally in the centre, the process long, triangular with the apical part curving slightly upwards and hairy in the inner face, this process, including the basal part, is glabrous; inner part of all tibiæ fringed with flavescent hairs which are longer in the intermediate and posterior legs; anterior tibiæ uni-dentate in the ♂, tri-dentate in the ♀.

This species is variable in shape, as well as in the colouring of the prothorax. In the male the elytra are either plainly more attenuate laterally behind than in the female or only slightly less so. In the type form, the disk of the prothorax is black or darkly infuscate with a somewhat narrow red margin; this is, however, the exception, the most common form being that in which the discoidal black patch is divided into two bands (var. *vitticollis*, Kr.); but occasionally the whole thorax is black (var. *atricollis*, Jans.).

Length 15–19 mm.; width 8½–10 mm.

Hab. Cape Colony (Albany, Butterworth, East London); Natal (Hilton Road, Upper Tongaat, Maritzburg, Eshowe); Transvaal (Pretoria, Potchefstroom, Lydenburg, Pietersburg).

Feeds on thistles and *Compositæ*.

MELINESTHES EXILIS, Jans.,
Cistul. Entomol., vol. iii., 1885, p. 141.

? *M. simillima*, Kr., Entom. Monastsb., ii., 1880, p. 25.

The species, of which the type, a ♂, was kindly communicated to me by Mr. O. E. Janson, is so closely allied to the preceding species that it is with the greatest diffidence that I accept it as being distinct. The shape of the elytra of the male varies as it does in

M. umbonata; in the type it is plainly attenuate behind. The characteristics are: the prothorax slightly more deeply punctate; the scutellum punctate, although very sparingly, in some cases; the metasternal process shorter, not reflexed at apex, and, therefore, more triangular, and its basal part punctate, the punctures being setigerous.

In all but one case the examples of *exilis* which I have examined are from localities different from those where *umbonata* occurs.

I have not met with much variation in the colour of the prothorax, the pattern seems so far to consist of two black bands in the median part of the red surface; these bands seldom reach the base.

Length 15–18 mm.; width $8\frac{1}{2}$–$9\frac{1}{2}$ mm.

Hab. Cape Colony (Burghersdorp, Kimberley); Orange River Colony (Vredeford); Transvaal (Boksburg, Potchefstroom); Natal (Durban, Frere).

MELINESTHES ALGOENSIS, Westw.,
Arcan. Entom., i., p. 184, pl. 45, fig. *a.*

? *M. soror*, Kr., Deutsch. Entom. Zeitschr., 1891, p. 1.

Male: Head, prothorax, with the exception of two elongate longitudinal black bands, scutellum, pygidium, the two apical segments of the abdomen, legs, posternum, and antennæ red; elytra flavous and having on each side a humeral black round spot, suture with a conspicuous black band, outer margin very narrowly rufescent; clypeus deeply excavate, the sides produced into two long horizontal horns sensibly divergent, dilated at apex and truncate there with the broadly dilated part reflexed, the upper part of the horns is carinate, the outer vertical, but the inner is concave with the lower margin conspicuously carinate, the head is bi-impressed and bears in the centre an horizontal tooth projecting above the clypeal excavation, the horns and the excavations are smooth, but the two cephalic impressions are filled with setigerous punctures; prothorax smooth on the disk but weakly punctate laterally; scutellum impunctate; elytra elongated, much attenuate laterally towards the apex which is only half the width of the base, very faintly bi-costulate on each side, and slightly yet distinctly punctulate; pygidium transversely plicate; abdomen weakly punctate except on the sides; metasternum covered with rugose setigerous punctures; metasternal process long, incurved at tip, and slightly pubescent there; anterior tibiæ dentate at apex only.

Female: Coloured like the male; the head is simple, but divided in the centre by a longitudinal ridge extending from the base to the

median part of the clypeus which is broadly and deeply emarginate in front; the whole head is very roughly punctate; the prothorax is somewhat closely punctate, and the scutellum slightly so; the anterior tibiæ are sharply bi-dentate.

Length 16½–22½ mm. (horns included).

Hab. Southern Rhodesia (Sebakwe; Salisbury, Mazoe, Matopos, Bulawayo.

I believe that *M. soror* of Kraatz is referable to this species.

Feeds on *Cassia* pods, wild figs, *Protea* flowers, *Acacia* flowers, and *Acacia* gum (G. A. K. Marshall).

Var. *flavipennis*, Westw., Arcan. Entom., i., p. 185, pl. 45, fig. 5.
M. calvipes, Jans., Cist., iii., 1885, p. 140.

Shape, size, and sculpturing of *M. algoensis*, but usually with the body completely black, and the elytra flavous with the suture and the two humeral spots black; occasionally, however, and occurring in the same locality as the melanic variety, are also found examples with a rufescent prothorax and two longitudinal discoidal bands, as well as partly red and partly infuscate prothorax.

It is worthy of note that in this variety the clypeal horns of the male are more parallel, and less broadly dilated at apex than in the type form as figured by Westwood, but I have seen several passages between the two.

Janson's *M. calvipes* is an example which through abrasion or bad usage has lost all traces of pubescence; the apical part of the clypeal horn is slightly more ampliated at tip than in the majority of my male examples, and thus approximates more the type form; in the ype which was kindly lent me by Mr. Janson, the carina which unites the two horns at the base is not distinct, but while in some of my examples this carina is almost obsolete, it is either moderately strong or very well developed in others.

Length 17–22 mm. (horns included); width 8–10 mm.

Hab. Transvaal (Johannesburg, Rustenburg, Lydenburg, Potchefstroom, Pretoria, Waterberg); Bechuanaland (Ramoutsa).

Melinesthes hamula, Jans.,

Plate XLVII., figs. 2, 2*a*.

Cist. Entomol., iii., 1885, p. 141.

Black, like *M. algoensis*, var. *flavipennis*, with the elytra pale yellow, the suture and the posterior margin moderately broadly black, the outer margin has a very narrowly black edge, and the humeral patch on each side is brownish black. While the female is

absolutely similar to that of the variety of *M. algoensis* already mentioned, the male differs in the shape of the cephalic horns, which, similar to those of *M. algoensis* from the base to two-thirds of the length, have there the upper carina vertically truncate, and continued as a sub-cylindrical process strongly curved and hamate at apex, and much more raised than the upper angle of the truncate part instead of being triangularly dilated and truncate at tip as in *algoensis;* these horns are not as diverging as in the latter, and the median porrect frontal horn is not more developed than in the var. *flavipennis*.

I have seen five males, including the type, and two females. The genital clasps of the male are hardly distinguishable from those of *M. algoensis*, and, in spite of the different shape of the cephalic horns, I am strongly inclined to consider the present species as only a variety of *M. algoensis*. Intermediate forms will probably be met with, much more so than in the intermediate and small development it is quite plain that the hamate part of the horns is the increase of the inner angle at the expense of the outer, the latter being still noticeable.

Length 18–22 mm.; width 10–12 mm.

Hab. Natal (Tugela River), Transvaal (Barberton).

Gen. GENYODONTA, Burm.,
Handb. d. Entom., iii., 1842, p. 234.

Mentum ampliate, rounded laterally, ligular part slightly dilated in front, narrowly and deeply incised in the centre and with the outer angles conspicuously rounded; palps cavity moderately long and moderately broad; inner lobe of maxillæ sharply hamate, upper one laminate, arcuate, truncate at apex and concave; antennal club of nearly equal size in both sexes, and shorter than the pedicel; head of the ♂ incised laterally with the outer margin raised as a high, laminate wall reaching to half the length of the clypeus, and either truncate at apex or gradually sloping there; from the centre of the base projects an horizontal lanceolate horn extending forward as far as the lateral walls, the clypeus is broader than the lateral walls of the head, parallel, quadrangular, but with the anterior margin produced in the centre into a laminate vertical process, sub-quadrate, or slightly rounded at apex; in the ♀ the head is simple but the clypeus is strongly carinate above the outer margin from near the eye almost to the anterior margin, and the sides project a good deal beyond this ridge; in the centre of both head and clypeus there is a longitudinal elevation, forming in conjunction with the lateral ridges

a moderately deep depression on each side; the prothorax is of the usual sub-trapezoidal form, moderately sinuate on each side of the scutellum and strongly arcuate above it; scutellum long and sharp, grooved laterally; elytra elongated, and narrowing behind; sternal process long, slanting slightly downwards, but with the cylindrical apical part curving upwards without being, however, much hamate; anterior tibiæ of ♂ dentate outwardly at the apex only, those of the ♀ tri-dentate; inner part of tibiæ not pubescent but with seriate hairs in both sexes; hind femora of ♂ thickened but in a much lesser degree than in *Eccoptocnemis*, and inner part of tibiæ either moderately or strongly serrate.

GENYODONTA FLAVOMACULATA, Fabr.,
Plate XLIII., figs. 16, 17.
Ent. Syst. Suppl., p. 129;
Gory and Perch., Monogr., p. 139, pl. 21, fig. 3.

bimaculata, de Geer, Mém. Ins., vii., p. 369, pl. 47, fig. 19.
,, Oliv., Entom., i., 6, p. 14, pl. 2, fig. 6.
bisignata, Herbst., Käf., iii., p. 164, pl. 27, fig. 5.
Var. *egregia*, Boh., Ins. Caffr., ii., p. 15.
quadricornis, Jans., Cist. Ent., iii., 1884, p. 104.

Light chestnut, with four black patches on the prothorax, and two small ones on the scutellum, past the median part of the elytra there is on each side a quadrate flavous patch the outer edge of which is continued along the outer margin in the shape of a lateral band which does not reach quite the posterior outer angle, the dorsal part of the patch, which with its prolongation is not unlike a huge zigzagged comma, is often sinuate, and either partly or completely edged with black; in some examples from the Transvaal the four patches on the thorax, the hind ones of which are normally larger than the anterior, have invaded the greatest part of the disk, and the elytra with the exception of the outer margins, and also the scutellum, are very dark brown; head almost impunctate in the male, closely punctate in the female, but the punctures on the prothorax are few and more noticeable in either sex on the sides which are slightly transversely sigillate towards the median part; scutellum impunctate; elytra non-costulate and very obsoletely seriate punctulate; pygidium more conspicuously plicate transversely in the female than in the male; under side glabrous except for a short pubescence on the anterior coxæ, weakly punctate in the male, but strongly and closely in the female; the serration of the inner part of the hind tibiæ of the male varies greatly in individuals

from the same locality, it may be altogether absent, or nearly as strong as in *Inhambane serripes*.

The type of this species I take to be the form occurring in the Cape Colony, and also in Natal; in the Transvaal the examples are often partly melanic, but the size is about the same as that of the type form; in Northern Rhodesia, Beira, and Ovampoland the examples are usually smaller, lighter in colour, and the lateral clypeal ridge of the male as often as not is more vertically truncate. It is this form which Boheman described as *G. egregia*, and O. E. Janson as *G. quadricornis*. The apical angles of the genital armature of the male are very slightly more angular in the variety than in the type; fig. 16 is not a faithful one. Fig. 17 is quite correct.

Length 21–28 mm.; width 10–14½ mm.

Hab. Cape Colony (the whole of the Eastern Provinces, Kimberley); Orange River Colony; Transvaal; Natal; Southern Rhodesia (Salisbury, Mazoe, Sebakwe, Limpopo River, Tati, Victoria Falls, Bulawayo); Ovampoland; Nyassaland; Mozambique (Beira).

This species is very destructive to cultivated fruit (peaches, plums, bananas, &c.) in the Cape Colony and Natal; in Rhodesia, however, where the cultivation of fruit is still in its infancy, it feeds on *Acacia* gum (G. A. K. Marshall).

GEN. ISANDULA, J. Thoms.,
Le Natur., ii., p. 294.

Smaragdesthes (part), Kraatz.

Mentum and ligula nearly straight laterally but slightly narrower at base than at apex, where it is deeply sinuate in the centre and hairy in the sinuation, the basal median part of the outer face is broadly excavated, and the palps cavity moderately broad; maxillæ short, robust, inner lobe with a strong tooth set at right angles with the lobe, upper lobe short, sub-transverse, blunt inwardly and sub-laminate; in both sexes the clypeus is parallel, sub-carinate juxta laterally, concave at apex with the anterior margin strongly reflexed into a laminate wall in the centre, and over the basal part of the clypeal excavation there projects slightly a short, horizontal, blunt, transverse tooth which is the continuation of a median, rounded longitudinal cephalic ridge beginning near the occipital part; antennal club of ♂ almost as long as the pedicel; prothorax of the usual sub-trapezoidal type; scutellum longer than broad and very acute, not grooved laterally, and slightly depressed in the centre; elytra very elongated, and only one-third narrower at apex than at the base; sternal process very long, slender, horizontal, but tapering

and strongly curving upwards at apex; anterior tibiæ dentate at apex in the ♂, weakly bi-dentate in the ♀; under side, except the anterior coxæ, glabrous; intermediate and posterior tibiæ slightly pubescent inwardly.

Thomson has proposed this genus for a species ranging from Senegambia and Guinea to Southern Rhodesia and Delagoa Bay.

ISANDULA AFRICANA, Drur.,
Illustr. exot. Ins., ii., p. 54, pl. 30, fig. 4;
Oliv., Entom., i., 6, p. 31, pl. 8, fig. 70.

Var. *subsuturalis*, Kraatz.

Shiny green or greenish blue, with the dorsal part of the elytra suffused with a flavescent sheen, which is more distinct when the elytra are bluish green instead of emerald-green, and which occasionally invades three-fourths of the dorsal part; head deeply punctate on each side of the longitudinal raised part, and sparingly so in the clypeal cavity; prothorax covered with equi-distant, moderately deep punctures distant from each other, but obliterated in the centre of the disk, except occasionally in some female examples; scutellum impunctate, but occasionally with a few punctures; elytra with regular series of round, distinct punctures, or with the punctures finer but still seriate, the short, declivous part is strongly and irregularly plicate transversely, and more roughly so than on the pygidium; the under side is more numerously punctate in the female than in the male, where the punctures are very scarce, and the sternal process has a distinct transverse suture in the female, but not in the male.

Owing to its great range this species has developed into numerous local races or varieties, and even in South Africa there is a slight variation in colour and sculpture in examples from different localities. The Mozambique examples are nearer to the Senegal form; the colour is not so deep emerald-green as in the specimens from the Gold Coast, and there is either a faint tinge of yellow on the elytra or a well-defined parallel flavescent band, but the seriate punctures are equally deep; it is this form which Mr. O. E. Janson has identified for me as the variety *subsuturalis* of Kraatz. In Southern Rhodesia the flavescent sheen of the greatest part of the elytra is intensified and the seriate punctures are much smaller and shallower; these characters, however, are very variable in examples from the same locality. The shape of the genital armature is the same for examples from Senegambia, the Gold Coast, and also for the var. *urania*, Bat., from the Zanzibar mainland.

Length 20–23 mm.; width 9½–11 mm.

Hab. Southern Rhodesia (Salisbury, Mazoe, Matopos, Rusapi, Sebakwe); Mozambique (Lourenço-Marquez, Rikatla, Beira).

Feeds, like *Cœlorrhina loricata*, on gum of *Acacia* and *Combretum*, on pods of *Cassia*, and on flowers of *Protea* (G. A. K. Marshall).

Gen. PTYCHODESTHES, Kraatz,

Deutsch. Entomol. Zeitschr., 1883, p. 391.

Mentum of *Raceloma*, but slightly more parallel laterally, very hairy on the outer face; maxillæ long, moderately slender, inner lobe simple, upper lobe long, sub-falcate, densely hairy even on the greatest part of the outer face; last joint of palps of the normal shape; head and clypeus simple in both sexes; clypeus incised laterally at base, parallel, the outer angles plainly marked, although slightly rounded, only slightly sinuate in front, carinate all round but with the sides not projecting beyond the ridge, cephalic part somewhat hairy; antennal club longer than the pedicel in the ♂, nearly as long in the ♀; prothorax of the usual shape; scutellum very sharply acuminate; elytra sub-parallel, pluri-costate; sternal process elongated, aculeate and sub-acuminate, not quite horizontal, slightly slanting downwards, grooved along metasternal part, and with a slight mesosternal suture; anterior tibiæ dentate at apex only in the ♂, those of the ♀ bi-dentate; pectus somewhat hairy. inner part of all tibiæ sparsely pubescent; hind ones with a sharp tooth on the upper side.

Kraatz proposed this genus for a series of African species formerly included by Burmeister in the genus *Coryphocera*, sect. B, such as *C. alternata*, Kl., *bicostata*, Sch., *africana*, Drury, &c.; but however much the characters drawn from the shape of the sternal process and given by him may apply to some species such as *africana*, &c., viz., "mesosterni processus elongatus, gracilis, mucronatus, recurvus," it certainly does not to *Coryphocera alternata*. We have already seen that a new genus (*Isandula*) was proposed by J. Thomson for *Coryphocera africana* and allies previous to Kraatz's publication of his genus *Smaragdesthes*. To this genus, with an amended diagnosis must then be referred *C. alternata*. Kl., *bicostata*, Sch., &c. Not so, however, *S. oertzeni*, Kolbe, which although uncommonly like *S. alternans*, but larger, differs considerably in the shape of the mentum and of the buccal organs, especially of the upper maxillary lobe. The shape of the genital valves of the two is of a quite different pattern.

PTYCHODESTHES ALTERNATA, Klug,
Monatsb. Berl. Acad., 1855, p. 660;
Peter's Reis., 1862, p. 263, pl. 15, fig. 8.

Bright green, shiny; elytra occasionally with a slight bluish tinge in the median dorsal part; antennæ chestnut-brown; clypeus punctulate only but with the central part of the head punctate and moderately densely pubescent in the male, but deeply and closely punctured all over, except at the occipital base, and with the flavescent pubescence very short and scanty in the female; prothorax extremely finely aciculate and bearing some round scattered punctures along the sides and especially the base in the male, but more numerous, deeper, and nearly equi-distant in the female, in which also the background is quite smooth; scutellum impunctate; elytra with two conspicuous tectiform costæ uniting on each side at the posterior callus, and bearing each seven punctate striæ; pygidium covered with very shallow, partly obliterated cicatricose punctures; sides of abdominal segments and legs punctate; pectus closely punctate in both sexes and clothed with a flavescent pubescence which is denser in the male than in the female, in which sex the legs are somewhat rufescent.

Length 16 mm.; width 8–8½ mm.

Hab. Southern Rhodesia (Manica); Mozambique (Tette, teste Klug, Beira).

GEN. RACELOMA, J. Thoms.,
Bull. Soc. Ent. Fr., 1877, p. cxiii.

Mentum elongated, ovoid laterally, ligular part slightly ampliated, very deeply and triangularly incised in front with the outer part of the lateral lobe diagonal, palps cavity very wide, outer face clothed with very long hairs; maxillæ moderately massive, inner and upper lobe not dentate, the latter long and surmounted by a very long and thick pencil of hairs; clypeus deeply incised laterally in front of the first antennal joint, carinate but with the sides bulging, broadly and arcuately emarginate in front and rounded laterally; antennal club nearly as long as the pedicel in the ♂, shorter in the ♀; prothorax of the usual sub-trapezoidal shape; sub-arcuate above the scutellum, which is long and sharp, and the acuminate part slightly carinate; sternal process short, bluntly acuminate, grooved on the metasternum, but without any traces of suture on the mesosternum; anterior tibiæ dentate at apex only in the ♂, tri-dentate in the ♀; inner part of all the tibiæ moderately deeply pubescent in both sexes.

This genus, which comprises two species, seems to be restricted to South Africa.

Key to the Species.

Scutellum almost impunctate; anterior clypeal margin plainly emarginate .. .. *natalensis.*

Scutellum closely aciculate; anterior clypeal margin slightly sinuate *jansoni.*

RACELOMA NATALENSIS, Hope,
Proc. Ent. Soc., 1841, p. 33;
Westw., Arcan. Entom., i., p. 186, pl. 46, fig. 4, ♂.

R. induta, Sch., Ann. Fr., 1844, p. 404, pl. 11, fig. 4, ♀.

Dark bottle-green, almost black underneath, with the elytra violaceous on the sides, but with the scutellum and the median dorsal part either bright green or blue; antennæ piceous, legs very dark green or dark blue; anterior part of the clypeus plainly emarginate, head deeply and somewhat coarsely punctured as on the prothorax, where the punctures are somewhat closely set, but very uneven; scutellum with only a few, scattered, shallow punctures; elytra elongated, very little narrower across the apex than at the base, bi-costulate on each side, and covered with closely set deep punctures which are sometimes surrounded by a smooth raised wall in the anterior dorsal part of the female; pygidium finely plicate; pectus hairy in both sexes, but more densely so in the female, the hairs fulvescent.

Length 16–18 mm.; width 8–9 mm.

Hab. Natal (Durban).

RACELOMA JANSONI, Dist.,
Ann. and Mag. Nat. Hist., xix., 1897, p. 577.

Male: Head, prothorax, and scutellum deep green, moderately shiny, immaculate; elytra dark blue, and without any traces of white marginal bands; pygidium black, immaculate; under side legs, antennæ, and palpi black; antennal club as long as the whole head; clypeus slightly rounded laterally, and slightly sinuate at apex, deeply and closely pitted like the head, on the vertex of the latter the punctures are briefly setigerous; prothorax very closely and deeply pitted, especially on the sides, in the centre there is a smooth longitudinal line; scutellum deeply and closely aciculate punctate; elytra elongate, plainly sinuate laterally, coarsely punctate, the punctures deep and cicatricose, bi-costate on each side in the dorsal part, but having also a costule running from the humeral part to two-thirds of the length, and almost parallel with the outer

dorsal one, the intervals are not striate; abdomen glabrous; pectus briefly pubescent.

Length 12 mm.; width 6 mm.

Hab. Transvaal (Pretoria); Natal.

Gen. TÆNIESTHES, Kraatz,
Entom. Monatsb., ii., 1880, p. 27.

Mentum of *Isandula*, maxillæ robust, inner lobe with a small, slightly hooked inner tooth, upper lobe robust, and moderately hooked, vertical inwardly, with the two angles sharp; body short, somewhat massive; the shape of the head and of the clypeus are similar in both sexes, clypeus parallel, broadly emarginate at apex with the outer angles well rounded, and with a longitudinal, median, rounded keel beginning at a short distance from the cephalic base and ending at about the median part of the clypeus in a briefly projecting horizontal tooth; antennal club not quite as long as the pedicel in the ♂; prothorax somewhat short, sub-trapezoidal, as much arcuate on each side of the base as above the scutellum which is as broad as long, but sharply acuminate and not depressed in the centre; elytra somewhat short, not very much attenuated behind; sternal process horizontal, slender towards the apex and strongly curving upwards there in the manner of *Isandula*, &c.; legs somewhat short, anterior tibiæ dentate at apex in the ♂, bi-dentate in the ♀, but with the upper tooth very blunt, inner side of intermediate and posterior tibiæ moderately densely pubescent, the upper ridge of the posterior one dentate in either sex.

This description is made from examples of the South African representative, but the genus was founded by Kraatz for *Heterorrhina specularis*, Gerst., from the Zanzibar mainland, in which the clypeus is simple in the ♀, the only sex I know.

Tæniesthes picturata, Har.,
Mitt. Münch. Ent. Ver., ii., 1878, p. 103.

bradshawi, Poll. Deutsch. Entomol. Zeitschr., 1886, p. 300.

Light brick-red with the elytra more flavescent; head fuscous with the central part of the clypeus rufescent; prothorax with three dorsal black longitudinal bands; scutellum narrowly fuscous across the base; elytra with a broad reddish-brown sutural band which is continued from the top of the hind declivity as a narrow line, the anterior and posterior callus bear each a quadrate patch of the same colour, but that of the hind callus is usually elongated, con-

nected on the upper inner edge with the lateral band, and also continued transversely across the median part of the apical margin. I have seen examples in which the prothoracic bands as well as the elytral band and spot have invaded the whole of the disk, leaving only a very narrow line of the reddish and flavescent original background uncovered, the under side in this melanic variety is also black; head and clypeus deeply but not closely punctate, the punctures being somewhat cicatricose; prothorax deeply punctate except on a broad, longitudinal median area, these punctures are round and separated by a space equal to their own diameter, but close to the outer margin they become transversal; scutellum sparingly punctate; elytra somewhat short, covered with round punctures, closely set but not seriate, and having no traces of costules; pygidium rufescent, closely plicatulate transversely; abdomen very weakly punctate in the male, more deeply so in the female, but the metasternum is deeply punctate in both, and moderately briefly pubescent.

Length 15–15½ mm.; width 8–8½ mm.

Originally described by Harold from West Central Africa. This species is recorded in South Africa from Southern Rhodesia (Mazoe, Victoria Falls, Sebakwe, Salisbury, Umcheki River), and also from the Transvaal (Waterberg).

Found on flowering shrubs (G. A. K. Marshall; D. Dod).

Gen. PLÆSIORRHINA, Burm.,
Handb. d. Entom., iii., p. 211.

Dyspilophora, Kraatz, Entom. Monatsb., ii., 1880, p. 27.

Mentum broader or slightly broader at apex than at base but with the sides parallel; inner lobe of maxillæ simple, upper lobe short, more or less sharply toothed; head and clypeus simple in both sexes, the latter is sub-parallel, carinate above the sides, broadly but not deeply emarginate in front; prothorax of the normal shape; scutellum as broad as long, not very much elongated, but sharp at apex; elytra elongated, parallel and not attenuated behind (*Plæsiorrhina*), or only very slightly so (*Dyspilophora*); sternal process elongated, slender, strongly curving upwards at apex; anterior tibiæ dentate at apex only in both sexes; intermediate and posterior tibiæ simple and moderately pubescent inwardly in both sexes of *Dyspilophora* and also in the ♀ of *Plæsiorrhina*, but dilated in the centre inwardly and with a long pubescence in the posterior part of the hind tibiæ in the ♂ of *Plæsiorrhina*.

The genus is represented in Senegambia, Guinea, Tropical Eastern

Africa, and South Africa. The only difference between *Plæsiorrhina* and *Dyspilophora* is that the latter is smaller, the elytra are less parallel laterally, and in the ♂ the hind tibiæ are evenly pubescent inwardly.

Key to the Species.

Clypeus slightly sinuate in front .. .. (*Plæsiorrhina.*)

Elytra elongated, parallel, and bearing a transverse narrow yellow band extending from side to side past the median part.. *plana.*

Clypeus deeply emarginate in front.. .. .. (*Dyspilophora.*

Elytra with a broad sub-sinuate yellow patch on each side .. *trivittata.*

PLÆSIORRHINA PLANA, Wied.,
Germ. Mag., iv., p. 145.

herscheli, McLeay, Illust. Zool. Afric., iii., p. 31.
tænia var., Wied., Zool. Mag., ii., 1, p. 163.
deussi, Schoch., Entomol. Nachr., vii., 1898, p. 101.

Dark bronze on the upper side with a very narrow flavescent border on the prothorax and a transverse, moderately broad, bi-sinuate flavous band on the elytra reaching from the outer margin to the suture; pygidium bronze with a flavescent median patch; abdominal segments and all sternal parts as well as the side-pieces flavescent and edged with bronze; tibiæ bronze; antennæ piceous with a metallic tinge; head and clypeus closely punctate, the punctures on the sides of the prothorax turning to somewhat fine transverse folds; scutellum sparingly punctulate; elytra almost parallel, not costulate, punctate, the punctures deep but only moderately closely set, and non-seriate; pygidium finely plicate transversely; under side glabrous and sparsely punctate; intermediate tibiæ slightly arcuate in the male, the posterior ones bluntly triangularly ampliated at about the median part of the inner side and densely pubescent in the posterior part of the tibia only, while the intermediate tibiæ are moderately pubescent along their whole length; the female differs from the male merely in the non-dilatation of the inner part of the hind tibiæ, which, like the intermediate ones, are pubescent along the whole length.

This species is replaced in East Central Africa by the colour variety *P. undulata*, Bat., which is of a redder bronze colour with a more distinct greenish sheen, and in which the post-median elytral band is greatly narrowed and edged with fuscous, but in which the genital armature of the male is absolutely similar to that of

P. plana; in Western Africa is another colour variety, *P. mediana*, Westw., differing from the type form in being greenish bronze instead of dark bronze, and having a slightly narrower elytral band.

Length 22–23 mm.; width 11–11½ mm.

Hab. Cape Colony (Graham's Town, Albany, East London, Port St. John, Kimberley); Natal (the whole Colony); Orange River Colony (Vredeford, Bloemfontein, Kroonstadt); Transvaal (in every district); Southern Rhodesia (Umtali, Salisbury, Mazoe, Matopos).

In the Cape Colony this species, like *Genyodonta maculata*, is injurious to cultivated fruit; Mr. G. A. K. Marshall informs me that in Rhodesia it feeds on gum of *Combretum* and *Acacia;* also on flowers of *Acacia*, *Protea*, and *Zizyphus*, on roses, and on various wild and cultivated fruit.

PLÆSIORRHINA (DYSPILOPHORA) TRIVITTATA, Sch.,
Anal. Entom., p. 41.
Westw., Arcan. Entom., i., p. 186, pl. 46, fig. 3, ♂.
Var. *nigricans*, Kraatz, Entom. Monatsb., ii., 1880, p. 27.

Chestnut-red, with three black longitudinal discoidal bands reaching from near the apex to a short distance from the base on the prothorax, elytra with a very large, median yellow patch, somewhat sinuate in the posterior part, occupying about one-third of the length, slanting towards the suture which it does not reach, and connected with the outer margin, this patch is usually edged with fuscous; pygidium rufescent, somewhat infuscate longitudinally in the centre. The colour of the type form is, however, very variable, and as often as not the whole dorsal part of the prothorax, except for a narrow flavescent margin, is fuscous or almost black and the elytra also totally fuscous with the exception of the dorsal flavous patches; this is the variety *nigricans*, Kr.; but I have examples from the same locality in which the elytra are fuscous from the base to four-fifths of the length only, with the prothoracic black bands of the normal shape, or forming a wide black triangle enclosing two short bands of the reddish background. Head and clypeus covered with round, closely set punctures; prothorax almost impunctate in the centre and along the base, but deeply punctate on the sides; scutellum impunctate; elytra deeply sinuate laterally, and slightly attenuate in the posterior part, not costulate, and covered with somewhat closely set non-seriate punctures; under side glabrous, scabrose punctate and plicate in the male, sparsely pubescent in the female; inter-

mediate and posterior tibiæ somewhat densely fringed with fulvous hairs all along their length in both sexes.

The range of this species is very wide in South Africa, but the type form seems to be restricted to the Cape Colony, Natal, Orange River Colony, and the southern part of the Transvaal; further north the melanic or partly melanic variety *nigricans* prevails, and reaches East Central Africa.

Length 15–17 m ; width 8–9 mm.

Hab. Cape Colony (Transkei); Natal (every district); Transvaal (every district); Bechuanaland; Ovampoland; Southern Rhodesia (Bulawayo, Salisbury, Mazoe, Sebakwe, Massikessi, Umtali, Untokos).

Gen. MAZOE, Péring.,
Trans. Ent. Soc. Lond., 1896, p. 162.

Mentum sub-parallel, ligular part very little narrower than the mentum, truncate at apex and very slightly sinuate there, the condyle of the labial palpi is lateral and apical, and only moderately long, the apical joint of the labial palps is straight inwardly, sub-fusiform outwardly; maxillæ moderately robust, upper lobe broadly triangular, corneous, densely ciliate at the tip; joints of maxillary palps moderately long, last one sub-cylindrical; clypeus slightly longer than the head, sub-parallel, or slightly rounded laterally, nearly straight at apex, strangulate at the base and with the lateral and apical margins very slightly raised, ocular canthus quite transverse; antennal club as long as the pedicel; prothorax three times broader at the base than at the apex and gradually sloping laterally from the apex to about the median part, past which it is conspicuously sinuate, the lateral part of the base is so produced as to cover half the mesothoracic epimera, which are very narrow, the base is quite straight; scutellum very long and very sharp; elytra not broader at the shoulders than the base of the prothorax, attenuate behind, plane, pluri-costate on each side; pygidium one-third broader than long, vertical in the ♂ ; legs slender, anterior tibiæ bi-dentate outwardly and with a faint trace of a third tooth; hind tibiæ with a distinct tooth on the upper side, terminal part truncate, briefly 3-dentate, median and hind tarsi ciliate underneath, hind ones somewhat compressed; metathorax sending between the median coxæ a blunt process, which is vertical at tip; the prothorax is almost straight along the base, and thus hides the greatest part of the mesothoracic epimera, which are not much developed.

The genus appears to be restricted to South Africa.

MAZOE ALBONOTATA, Péring.,

Plate XLV., fig. 6.

Trans. S. Afr. Phil. Soc., 3, 1885, p. 28.
jucunda, Pér., Trans. Ent. Soc. Lond., 1896, p. 162.

Black, somewhat opaque on the upper side, head either with an elongated pale fulvous patch extending to half the length of the clypeus, or entirely without it; prothorax with nine whitish or yellowish patches, which are occasionally coalescing and thus cover the greatest part of the surface, but are also entirely wanting in some examples; scutellum also with or without a flavescent patch; elytra with a supra-marginal white or flavescent band which is not unseldom either completely or partially obliterated; in several examples, the background or the intervals of the discoidal part is somewhat brownish red; pygidium with two white patches; clypeus and head moderately deeply punctate, palps and antennæ piceous black; prothorax strongly narrowed laterally in front, diagonally ampliated from the apex to about the middle, very strongly sinuate there, widest along the base which is straight and fits so closely along the elytra that the mesothoracic epimera are partly hidden, the surface is covered with rough sub-contiguous punctures separated by thin, irregular walls; elytra elongated, very little sinuate laterally, narrower at apex than at base, plane, and having on the discoidal part six distinct costæ, including the suture, these costæ as well as the intervals and the supra-marginal part are coarsely punctate; pygidium vertical, and having along the apical margin a fringe of small black hairs; abdomen glabrous, pectus and legs sparsely punctate, the punctures briefly setigerous, the hairs black; antennæ and palpi piceous red, the club equal in length in both sexes.

The type form of *M. albonotata* was described from an example with nine white macules on the prothorax, and a white supra-marginal band and a patch on each side of the apical part on each elytron, the latter being black; *M. jucunda* was described from an example in which the patches on the thorax are light fulvous, instead of white, and have invaded nearly the whole surface; the intervals of the elytra are rufescent. But the colouring is very variable. According to Mr. G. A. K. Marshall, this species is termitobious, never seen on gum or flowers, and flies in the sunshine.

Length 16–20 mm.; width $8\frac{1}{9}$–$9\frac{1}{2}$ mm.

Hab. Bechuanaland (Ramoutsa); Transvaal (Pietersburg, Rustenburg, Pretoria); Southern Rhodesia (Salisbury, Enkeldoorn, Marandellas).

Group SCHIZORRHINII.

Gen. GNATHOCERA, Kirb.,

Trans. Linn. Soc., xiv., 1825, p. 571.

Amphistoros, Gory and Perch., Monogr. d. Cét., p. 145.

Body almost glabrous; mentum greatly elongated, sub-oblong, parallel, with the whole anterior margin deeply scooped, the outer angles sharp, the outer face of the ligular part is convex, and the palps cavities very long and very wide; maxillæ long, somewhat slender, upper lobe short, dentate, and also very stiffly ciliate inwardly; clypeus attenuate in front, carinate laterally, and with the outer angles prolonged in a compressed, acuminate process half as long as the head; antennal club shorter than the whole pedicel; prothorax sub-trapezoidal, with the basal angles sub-obtuse, and the base arcuate above the sharply triangular scutellum; elytra broader than the prothorax, strongly sinuate laterally, slightly attenuate behind, and plainly bi-costate on each side, the suture raised; the prosternal epimera are greatly reduced, triangular at the top, and vertical; sternal process very long, conical, curving strongly inwards at the tip. Interior tibiæ sharply tri-dentate; tarsi slender, claws very long; posterior tibiæ incurved in the male.

This genus is easily identified by the shape of the clypeus.

The species of this genus inhabit Eastern, Western, and Central Africa, but one species originally described from Nyassaland occurs in the north-eastern part of the South African Region.

Gnathocera validа, Jans.,

Cistul. Entomol., iii., 1884, p. 105.

Almost glabrous, black, with the elytra flavo-testaceous or flavous and the antennæ and legs rufescent; the clypeus is longitudinally striolate and the head moderately closely punctate, on the clypeus are two cretaceous white bands and two spots of similar colour on each side of the head; the prothorax is deeply and irregularly punctured and sparsely setulose like the frontal part of the head, very broadly grooved in the centre of the disk, and deeply arcuately emarginate above the scutellum, the longitudinal groove is coated with white, and there is on each side a similar white band covering a quarter of the whole surface; the very long scutellum is strongly arcuate at the base, broadly grooved in the centre, the groove coated with white; elytra glabrous, highly bi-costate, the costæ smooth, and the intervals filled with closely set, seriate punctures, along the outer

margin runs a humeral slender white band followed by four sub-transverse white patches, and there is a broader one on each side of the apex; pygidium with a wide white patch on each side; the whole under side is banded laterally with white, the central part of the abdomen is narrowly black with a median series of white spots, the femora are coated with white, and the inner part has a fine, flavescent white pubescence.

Feeds on flowering grasses.

Length 15½–16 mm.; width 8½–8¾ mm.

Hab. Transvaal (Pietersburg, Zoutpansberg); Southern Rhodesia (Victoria Falls, Manica, Salisbury); Natal (Frere).

GNATHOCERIDA, n. gen.

This genus differs from *Gnathocera* in the shape of the sternal process which projects very little beyond the coxæ and is there vertically truncate; the body is very densely hairy on both the upper and lower sides; the basal part of the prothorax is only moderately arcuate above the scutellum which is shorter, broader at the base and not furrowed in the centre; the upper lobe of maxillæ is edentate, but the bristles are so stiff as to resemble spines.

GNATHOCERA HIRTA, Burm.,
Handb. d. Entomol., 1842, iii., p. 547.

Dark green but occasionally rufescent green, clad on the upper side with slightly flavescent, very long setulose hairs, which are denser on the under side and legs; clypeal part partly or completely coated with white; prothorax very closely punctate, and having a somewhat narrow marginal lateral white band; prothorax punctulate except at the base; elytra with the intervals between the suture and costæ very deeply punctate, along the outer margin is a band of interrupted white macules somewhat variable in number, one on each side of the apex, and two or four dorsal ones on each side in the posterior part; the number of these macules is very variable, and I have seen examples from Johannesburg in which there are, in addition to four well-defined ones, five or six small white spots; in this varietal form the scutellum has a large white patch, and the prothorax from two to five minute white macules; pygidium broadly maculated occasionally with white on each side; lateral part of the body broadly banded with white, also the femora; central part of abdomen with a median series of white spots.

Feeds on the flowers of various plants.

Length 14–14½ mm.; width 7⅕ mm.

Hab. Natal (Durban, Maritzburg, Tugela River, Malvern, Frere); Transvaal (Johannesburg, Pretoria, Lydenburg).

Gen. GAMETIS, Burm.,
Handb. d. Entomol., iii., 1842, p. 356.

Phonotænia, Kraatz. Deuts. Entom. Zeitschr. 1880, p. 154.

Mentum long, sub-parallel or somewhat oblong, emarginate in front, the palps cavity very elongated; maxillæ long, somewhat slender, lobes simple, upper one with a very long pencil of fulvous hairs; clypeus attenuate laterally from near the median part to the apex, and somewhat deeply incised there; prothorax attenuate laterally in the anterior part for about one-third of the length, nearly parallel thence to the base the angles of which are well rounded, deeply arcuate above the scutellum which is narrow but long, and not sharply acuminate at the apex; elytra plane, non-costate, or very obsoletely so, sternal process projecting, more or less broadly triangular; anterior tibiæ tri-dentate; inner part of legs pubescent.

The genus is represented in Eastern and Western Africa.

Key to the Species.

A². Clypeus very sharply acuminate at apex.

Elytra non-costate, and with a quadrate scutellary patch, a sutural band, a median transverse band, and the apex black.. *sub-fasciata.*

A¹. Clypeus less sharply acuminate at apex.

Elytra weakly costulate, basal part with a long triangular black patch, apex black.. .. .. *balteata.*

Gametis subfasciata, Swed.,
Vet. Ak. Nya. Handb., 1787, iii., p. 191.

discoidea, Fabr., Ent. Syst., i., 2, p. 151.
flammea, Vig., Zool. Journ., ii., p. 237, pl. 9, fig. 2.
velutina, Oliv., Ent., i., 6, p. 89, pl. 12, fig. 114.
Gory and Perch., Monogr., p. 246, pl. 46, fig. 5.

Black, opaque on the upper side, epimera and elytra orange-red, the latter has a quadrate basal patch continued as a band along the suture, and extending in the median part as a more or less narrow transverse band which does not reach the outer margin, the whole of the apical part is black. Head and clypeus closely punctate; pro-

thorax nearly straight laterally in the posterior part, cicatricose punctate but with the punctures hidden by the black tomentum; scutellum impunctate; elytra non-costulate and with the apical part of the suture non-acuminate, striate, the striæ shallow and with elongated cicatricose punctures which do not quite coalesce, the apical part is much more plainly punctate, the punctures are transverse and strongly cicatricose; pygidium transversely plicate; under side glabrous, except the inner part of the legs, sparsely punctate, the median part of the metasternum is smooth, and the sternal process projects very plainly and is broadly triangular.

Length 14–16 mm.; width 8–9 mm.

Hab. Cape Colony (Mossel Bay, Knysna, Humansdorp, Uitenhage, Port Elizabeth); Natal (Durban, Weenen).

GAMETIS BALTEATA, de Geer,
Mém. Ins., vii., p. 642, pl. 48, fig. 4.

controversa, Gory and Perch., Mon., p. 246, pl. 46, fig. 6.
curtisii, Vig., Zool. Journ., ii., p. 237, pl. 9, fig. 1.
dulcinea, Thoms., Arch. Entom., i., p. 285.
lasciva, Thoms., loc. cit., p. 286.
natalensis, Thoms., loc. cit., p. 286.
zambesiana, Kraatz, Deutsch. Ent. Zeit., 1900, p. 78.
zanzibarica, Raffr., Rev. and Mag. Zool., 1877, p. 331, pl. 2, fig. 3.

Black, opaque on the upper side; prothorax with a narrow, light flavescent lateral margin; elytra orange-red with a basal median triangular black patch the point of which reaches to about one-third of the length and sometimes further, the apical part is black from outer margin to outer margin, the upper edge of this black patch is bi-sinuate on each side. Head and prothorax somewhat moderately closely punctate, the punctures on the latter are not cicatricose, but they are usually hidden on the black tomentum; the sides of the prothorax are more sinuate laterally behind than in *G. sub-fasciata;* the elongated and somewhat narrow elytra are striolate in the dorsal part, and punctate beyond it, and there are two not very plain costules on each side, in the apical part the punctures are broad, shallow, somewhat transverse and form a kind of weak reticulation, apical part of the suture plainly acuminate; pygidium transversely plicate; under side as in *G. balteata*, the sternal process is a little more rounded laterally.

Length 14–15 mm.; width 7 mm.

Hab. Cape Colony (Graham's Town, Uitenhage, East London,

Port St. John); Natal (Durban, Maritzburg, Malvern, Frere, Tugela River); the whole of the Transvaal; Southern Rhodesia (Salisbury, Chirindi Forest, Sebakwe, Enkeldoorn); Zanzibar mainland.

Gen. COSMIOPHÆNA, Kraatz,

Deutsch. Entomol. Zeitschr., 1899, p. 120.

Buccal organs of *Micrelaphinis*, and clypeus similar in shape; prothorax not arcuate at the base above the scutellum, the latter long, sharp at apex, about one-third longer than broad; elytra without any traces of costules, or occasionally with two distinct costules; sternal process transverse, not projecting beyond the coxæ, anterior tibiæ bi-dentate; hind tarsi not aculeate outwardly.

Kraatz places this genus in the neighbourhood of *Glyciphana*.

Cosmiophæna pilosula, Kraatz,

Loc. cit., p. 120.

Rufescent and with a metallic tinge underneath, opaque on the upper side; the head and prothorax are green and the base of the latter is narrowly brighter than the disk; epimera and scutellum sub-flavescent, elytra light brownish with the sides of the scutellary region and the suture, as far as the median part, greenish, the background is dotted with numerous flavous macules; clypeus attenuated in front, the outer angles are plainly rounded, and the anterior part incised, both the frontal part and the clypeus are closely punctate, the former is briefly pubescent and bears a white band on each side; the prothorax is moderately closely punctulate, scutellum without punctures; elytra without any traces of costules, the suture itself being only slightly raised in the posterior part, and slightly acuminate at apex, the posterior margin is briefly pubescent; on the dorsal part are six series of well-defined punctures; pygidium punctulate, each puncture bearing an appressed fulvescent hair, it bears seven cretaceous splashes; abdominal segments punctulate, each puncture briefly setigerous, each segment covered with a cretaceous coating for nearly half its length; pectus with numerous, briefly setigerous punctures.

Length 10 mm.; width 5 mm.

Hab. Transvaal (Zoutpansberg). Mozambique (Guenzera).

This species is a straggler from the North. It was originally described from the Tanganyka Region.

GROUP SCHIZORRHINII.

The insects included in this group have the maxillæ simple and penicillate, the central part of the base of the prothorax is lobate, the lobate part is rudimentary in *Discopeltis*, but covers the whole scutellum in *Amazula*, *Stethosdema*, and *Pseudoclinteria*. This character is also met with in *Clinteroides*, and to a much lesser degree in *Glaucocelis*, but these two genera, owing to the sculpture of the elytra, are included in the Sub-Tribe *Leucocelites*.

GEN. DISCOPELTIS, Burm.,
Handb. d. Entom., iii., 1842, p. 599.

Mentum somewhat ampliate laterally, slightly broader at the apex than at the base, deeply incised in the central part of the apex; last joint of labial palpi fusiform outwardly, somewhat acuminate; maxillæ long, the two lobes simple, the upper with a long pencil of hairs, the inner densely pubescent; clypeus attenuate in front, slightly sinuose laterally, deeply emarginate in the centre; eyes large; antennæ normal; prothorax diagonally ampliated laterally from the apex to about the middle which is somewhat angular, almost straight thence, but with a slight sinuation towards the basal part the angle of which is moderately rounded, the median part of the base itself being broadly triangularly produced in the centre, and covering the base of the very elongated, sharply triangular scutellum; elytra deeply sinuate laterally, and having on each side two dorsal costæ obliterated or less strong in the anterior part; the suture is plainly keeled also in the posterior part, and the two intervals have two rows of elongated cicatricose punctures; sternal process sub-aculeate, projecting slightly beyond the coxæ, grooved in the centre right to the apex, sub-truncate at apex, and barely projecting beyond the coxæ; anterior tibiæ tri-dentate in both sexes, the teeth remote; intermediate tibiæ sharply dentate on the upper side.

This genus has representatives on the Guinea coast and also in Senegambia.

Key to the Species.

Seriate punctures of the first interval of elytra obliterated in the anterior part .. .. *vidua.*

Seriate punctures of the first interval of elytra not obliterated in the anterior part .. .. *tricolor.*

DISCOPELTIS VIDUA, Klug,

Monatsb. Berl. Akad., 1855, p. 660.

Peter's Reis., 1862, p. 264, pl. 15, fig. 9.

holubi, Schoch., Mith. Schw. Ent. Ges., x., 1897, p. 51.

Black, covered on the upper side with an opaque tomentum; prothorax with a very broad lateral white patch reaching from the apex to a short distance from the base, and extending to about one-third of the width, in the very centre of the apex of the base is a small white dot, and the scutellum bears a long white patch; each elytron has three white lateral patches abutting on the suture, the first one, set at the lateral sinuation, is small, the median one is the largest of the three, and reaches from the outer margin to the first dorsal costule, the third surrounds the hind part of the posterior callus; pygidium with two large round white patches. Head and clypeus closely punctulate, the punctures broader in the frontal part; prothorax moderately closely punctate, the punctures quite invisible under the white tomentose patches, and only slightly so under the black tomentum; scutellum impunctate; elytra deeply sinuate laterally, and only moderately attenuated behind, the first and second costules are distinct only from the median part of the disk to the apex where the two intervals have two series of somewhat cicatricose punctures which disappear altogether in the anterior part of the first interval, the humeral and the deflexed parts are sparingly punctate; propygidium partly uncovered, pygidium slightly slanting, the former aciculate, the latter punctate; under side shiny, sides of abdomen punctate, the second, third, and fourth penultimate segments have a lateral white patch much larger on the third than on the other two, but occasionally these patches are missing altogether, the sides of the metasternum are coated with white; legs cicatricose-punctate, inner part of femora and tibiæ briefly pubescent.

Length 10½–11 mm.; width 5½–6 mm.

Hab. Bechuanaland; Transvaal (Lydenburg, Waterberg); Northern Damaraland; Southern Rhodesia (Victoria Falls).

I have seen examples from the Waterberg District of the Transvaal in which the head, the median part of the thorax, and the pygidum are reddish, thus approximating *D. tricolor*, Burm., of which *D. vidua* may prove to be merely a melanic variety. These Waterberg examples were taken with the normally coloured type form, *i.e.*, *D. viduata*.

DISCOPELTIS TRICOLOR, Burm.,
Handb. d. Entom., iii., 1842, p. 600.

Black, head and clypeus, central part of the prothorax, a large quadrate patch on the elytra below the scutellum, and pygidium red, white patches as in *D. vidua*. It is so closely allied to the former as to make me doubtful of its specific value. I have seen female examples only, and I cannot thus make use of the shape of the genital armature to distinguish the two. My examples are, however, more elongated, and the two rows of punctures of the elytra between the suture and the first interval reach the base although less plain there than in the posterior part. In *D. vidua* they are completely obliterated there.

Length 12½ mm.; width 7 mm.

Hab. Southern Rhodesia (Victoria Falls); Transvaal (Lydenburg, Waterberg).

GEN. AMAZULA, Kraatz,
Deutsch. Entomol. Zeitschr., 1882, p. 51.

The only species included in this genus has almost all the characteristics of *Stethodema*, except that the sternal process is more porrect and slightly hamate inwardly at the tip, but it is not more produced towards the anterior femora than in *Stethodema*. The livery, however, is very different; the scutellum is completely hidden by the apical part of the prothorax; and the elytra have no traces of costules, and are thus intermediate in shape between those of *Stethodema* and of *Pseudoclinteria*.

AMAZULA SUAVIS, Burm.,
Plate XLV., fig. 7.
Handb. d. Entomol., v., 1847, p. 554.

egregia, Boh., Ofv. Vet. Ak. Forh., 1860, p. 117.

tricolorata, Westw., Trans. Ent. Soc. Lond., 1874, p. 477, pl. 8, fig. 4.

Black, clothed on the upper side with an opaque tomentum; sides of prothorax broadly white from the apex to about the median part and sub-crimson red thence to the base; elytra with a broad, transverse, or transversely ovate white patch extending at about the median part from the outer margin to about the middle of the disk, and at the apex there is a marginal one, much smaller, transverse, about equi-distant from the outer margin and from the suture; pygidium red, opaque, and with two white macules; the two penultimate abdominal segments, and also the metasternal epimera bear a large white patch, smaller, however, on the first penultimate seg-

ment; head and clypeus closely punctate, the punctures not contiguous; prothorax covered with sub-contiguous cicatricose punctures hidden almost completely by the tomentum; the elongated elytra have no traces of costules, the suture is slightly raised at the apex only, and the surface is seriate punctate, the shallow cicatricose punctures are like those of *Pseudoclinteria;* under side glabrous, shiny, the whole abdomen and pectus very closely cicatricose punctate.

Length 15½–17½ mm.; width 8–9 mm.

Hab. Transvaal (Lydenburg); Southern Rhodesia (Upper Limpopo River, Umfuli River); Mozambique (Lourenço-Marquez).

Gen. STETHOSDEMA, Bainbr.,
Trans. Entom. Soc. Lond., iii., 1842, p. 220.

Mentum elongated, sub-parallel, but broadening towards the apex, and slightly obliquely attenuate from near the top of the palps cavity to the apex the centre of which is broadly and deeply triangularly notched; inner and upper maxillary lobes simple, both densely hairy; last joint of labial and maxillary palps truncate at apex; clypeus triangularly acuminate towards the apex in the ♂, slightly ampliate laterally in the ♀, deeply notched there with the narrow outer angles truncate, frontal part short, simple, eyes extremely bulging; prothorax sub-trapezoidal but very plainly sinuate laterally near the apex, basal angles rounded, the base prolonged into a broad, long triangle overlapping the scutellum almost up to the tip which is almost linear; elytra elongated, attenuate behind, plane, uni-costate, suture raised from the median part, acuminate at apex; sternal process very long, compressed, diagonally truncate at apex from tip to base; anterior tibiæ plainly bi-dentate, and slightly sinuate at a distance from the upper tooth; intermediate and posterior tibiæ without any spine or transverse carina on the upper side; inner part fimbriate; all tarsal joints cylindrical on the upper part, claws long; antennal club nearly as long as the rest of the peduncle; body almost glabrous.

This genus was founded on a species from Guinea.

Stethosdema servillei, White,
Proceed. Zool. Soc., xxiv., 1856, p. 15, pl. 41, fig. 3.

Var. *cincticollis*, Raffr., Rev. & Mag. d. Zool., 1877, p. 330, pl. ii., fig. 2.

dejeani, T. Thoms., Scient., i., 1860, p. 32.

Rufous brown, with a somewhat broad chestnut band all round

the prothorax, opaque on the upper side, shiny underneath ; elytra with numerous white macules disposed in four somewhat transverse rows, and having in addition to these a marginal sub-humeral white lineole, the number of these spots is very variable ; pygidium with a lateral white macule and a median longitudinal line ; under side with an upper white macule and a longitudinal band on each ventral segment; metasternum and side-pieces maculated with white; clypeus plainly impressed longitudinally on each side, the impressions punctulate ; prothorax and elytra covered with an opaque coating hiding the sculpture completely on the prothorax, but less so on the elytra where, on the median dorsal part, minute, seriate punctures are distinguishable, the dorsal costa is well developed from about the median part ; between it and the suture are faint traces of another equally separated from the suture and from the dorsal costa by non-geminate rows of small punctures ; under side glabrous, except on the anterior coxæ, upper side of abdominal segments and of metasternum sparsely punctulate ; legs sub-striolate.

Length 20–26 mm. ; width 11–13 mm.

Hab. Natal (Durban); Southern Rhodesia (Mazoe, Rusapi, Hartley, Mt. Chirinda).

S. cincticollis, Raffr., seems to differ from the type in having two white discoidal spots on the prothorax.

S. dejeani, J. Thoms. can be considered identical with *S. servillei*.

Gen. PSEUDOCLINTERIA, Kraatz,
Deutsch. Entom. Zeitschr., 1882 p. 49.

Clinteria, Burm., Handb. d. Entomol., iii., 1842, p. 299 (part).

Mentum long, somewhat oblong or slightly broader towards the apex than at the base, upper and lower lobes of the long, somewhat slender maxillæ simple, the former with a long pencil of hairs, the latter densely fringed with hairs inwardly ; last joint of palps sub-cylindrical, blunt at tip; head simple, clypeus attenuated towards the apex, with the outer angles well rounded, and the narrowed apex deeply sinuate in the centre ; antennal club not quite as long as the pedicel ; prothorax sub-trapezoidal with the base sinuate and prolonged in the centre in a triangle slightly rounded at apex and hiding almost the whole of the scutellum except the line-like apex of the latter ; elytra moderately sinuate laterally, slightly attenuate behind, plane, with the suture raised behind and more or less aculeate at apex, faintly costulate, and with regular series of varicose punctures ; under side almost glabrous except on the lower

edge of the femora, sternal process strongly aculeate acuminate, projecting well between the coxæ and slanting slightly downwards; anterior tibiæ of ♂ bi-dentate outwardly in both sexes; tarsi moderately long, sub-cylindrical on the upper side, the basal ones not triangularly dilated in either sex.

The genus was founded by Kraatz for the reception of two African species, one of which I have removed into another genus.

Key to the Species.

Prothorax red with two black dots; elytra slightly attenuate behind, reddish brown, narrowly marginate with fuscous and with the suture black, or completely black .. .. *infuscata.*

Prothorax flavous, with a wide central black patch, occasionally divided into two; elytra black, distinctly narrowed behind.. .. .. *cincticollis.*

PSEUDOCLINTERIA INFUSCATA, Gor. and Perch.,
Monogr. d. Cét., p. 379, pl. 77, fig. 6.

Var. *maculicollis*, Schoch., Ent. Nachr., 1896, p. 330.

Black, glabrous, moderately opaque on the upper side; the prothorax is either black (type form) or brick-red, and has in the centre two black dots. This type form is, however, seldom met with in the South African area, the examples found there have the elytra reddish brown with a slight lake tinge, the suture is black, the basal moderately broadly infuscate, and the outer margins narrowly so; the head is deeply and closely punctate, the punctures are smaller on the clypeus; prothorax sparingly punctate, the punctures are small and partially or completely hidden by the opaque tomentum; elytra only slightly attenuate behind, very obsoletely bi-costulate and having regular series of ovate non-coalescing cicatricose punctures which are no longer seriate in the lateral deflexed part; sides of abdomen with cicatricose, scattered punctures; metasternum and legs strigillate punctate, sternal process punctulate, the suture faintly distinct laterally; legs briefly pubescent inwardly.

Length 12½–13½ mm.; width 6½–7 mm.

Hab. Transvaal (Pretoria); Southern Rhodesia (Sebakwe—type form and also variety—Manica, Victoria Falls, Enkeldoorn, Salisbury, Mt. Chirinda); Mozambique (Beira).

I have not seen the type of *C. maculicollis*, Sch., but from the description it seems to be a slight variety of the type, the difference consisting in the discoidal black patch of the prothorax being divided not two triangular macules.

Originally described from Senegal. The var. with red thorax is much more abundant in the South African area than the type form which is met with in the northern limit only.

PSEUDOCLINTERIA CINCTICOLLIS, Burm.,
Handb. d. Entom., v., p. 554.

Black, glabrous, moderately opaque on the upper side; the prothorax is flavous with a very broad median black patch very variable in shape; the anterior margin is occasionally infuscate, and there is on each side of the anterior part a supra-lateral black dot which coalesces with the dorsal patch when the latter is greatly developed. Head and clypeus deeply and closely punctate; prothorax moderately closely punctate, and very narrowly edged with black along the base; elytra plainly attenuate in the posterior part, being one-third narrower at apex than at base, very faintly bi-costulate, and with the suture plainly raised in the posterior part, the dorsal surface bears regular series of somewhat small, ovate, cicatricose, non-coalescing punctures, the deflexed part is rugulose, almost reticulate; under side as in the preceding species, sternal process grooved for the greatest part of the length, and sparingly punctate, the suture is distinct.

Length $10\frac{1}{2}$–$12\frac{1}{2}$ mm.; width 6–7 mm.

Hab. Bechuanaland; Northern Damaraland; Southern Rhodesia (Plumtree).

GROUP PACHNODII.

In this group are included three genera, *Pachnoda*, *Atrichia*, and *Rhabdotis*, the hind tarsi of which in several species approximate somewhat in shape those of the *Goliathii*. In *Pachnoda* and *Rhabdotis* the median part of the anterior margin of the prothorax is angular or tuberculate as in the first group of the *Goliathii*.

GEN. ATRICHIA, Schoch.,
Mith. Schw., Ent. Gesels., ix., 1896, p. 199.

Mentum parallel, deeply incised in front, with the angles rounded, palpi of normal shape, upper and inner lobe of maxillæ sharply toothed and densely ciliate; clypeus sub-parallel, sinuate in the centre of the anterior part, and with the anterior margin plainly reflexed; antennal club of ♂ slightly shorter than the pedicel; head pubescent; prothorax greatly attenuated in front, and slightly tuberculate in the centre, sinuate above the scutellum, which is

sharply triangular and grooved laterally; elytra plainly sinuate laterally, and with two distinct dorsal costæ on each side; sternal process sub-transversely aculeate, projecting beyond the coxæ; anterior tibiæ dentate outwardly at the apex only and only very slightly sinuate above it; intermediate tibiæ without tooth or spine on the upper side, posterior ones with only a rudimentary one; the basal joint of the hind tarsi is moderately angular outwardly, and the anterior claws are long and broadly divaricating.

This genus is founded for the reception of *Trichostetha placida*, Boh., which differs greatly from *Trichostetha*, not only in the toothed maxillæ, but in the absence of the two teeth on the upper side of the intermediate tibiæ, the uni-dentate anterior ones, the position of the two dorsal costæ on the elytra, &c.

ATRICHIA PLACIDA, Bohem.,
Plate XLIII., fig. 14.
Insect. Caffr., ii., 1857, p. 20.

Var. *algoensis*, Péring., Trans. S. Afric. Phil. Soc., iii., 1885, p. 90.
Var. *bugnioni*, Sch., loc. cit., p. 400.

Type. Black, glabrous on the upper side; the prothorax and elytra light sienna-brown; the head is closely punctate, and the frontal part very densely pubescent, the pubescence is greyish; the prothorax, very narrowed in front, has two broad fuscous dorsal bands gradually narrowing in width from base to apex, and is very deeply and closely punctate except in the median dorsal part between the two fuscous bands; the scutellum has a few remote, dot-like punctures; the elytra are closely and somewhat broadly punctate, but the punctures are very shallow, the sutural part from the sides of the scutellum to the apex is fuscous black, and on each side there is a round, or quadrate black macule at about three-fourths of the length on the deflexed part, the posterior callus is infuscate; pygidium glabrous, and with four or six white macules; abdominal segments somewhat pubescent along the sides and having on each a short white macule-like band; pectus clothed with a light fulvous pubescence; hind legs densely pubescent inwardly.

Var. *algoensis*. A little more elongated than the type, and, as a rule, opaque on the upper side; the prothorax is either totally black or the two dorsal black bands have invaded the greatest part of the disk, and the elytra are irregularly suffused with black on the dorsal part, or are, as in the type; the abdominal segments have two rows of white macules, and the metasternum three or four; in most cases there is a white dot at the base of the tibiæ.

Var. *bugnioni.* Upper and under side completely black, except for a very narrow marginal testaceous band in the anterior part of the elytra. It is this variety which Schoch described under the name of *A. bugnioni.*

Length 15–18½ mm.; width 9–10 mm.

Hab. (Type.) Natal (Durban, Maritzburg, Tugela River); Transvaal (no exact locality).

(Var.) Mozambique (Lourenço-Marquez, Rikatla).

GEN. PACHNODA, Burm.,
Handb. d. Entomol., iii., 1842, p. 511.

Dischista, Burm., loc. cit., p. 512.

Conostethus, Schoch., Schw., Entom. Gess., ix., 1894, p. 186.

Phoxomeloides, Schoch., Schw., Ent. Ges., 1898, p. 109.

Mentum sub-parallel, more or less deeply emarginate in front, outer face concave at the base and also near the apex; maxillæ robust, upper lobe with a slightly incurved tooth occasionally slightly bifid, inner lobe sharp at tip, and oftener than not slightly toothed; last joint of both palps sub-cylindrical; clypeus slightly attenuate in front, more or less deeply emarginate there, head simple; eyes large and with a short canthus; antennal club shorter than the whole pedicel; prothorax sub-trapezoidal, anterior margin with a small median protuberance, sometimes sub-conical, little convex; scutellum triangular, longer than broad, sub-acuminate at apex; elytra a little attenuate behind or sub-parallel, plane, obsoletely costulate in the dorsal part, or with the costule distinct in the posterior part only, plane, seldom distinctly seriate punctate, covering the greatest part if not the whole, of the propygidium, and not aculeate at the suture; pygidium more than twice as broad as long, sub-vertical; metasternum broad, grooved, mesosternal process projecting beyond the coxæ, more or less orbicular and horizontal, or compressed laterally and deflexed; legs somewhat robust; anterior tibiæ bi-dentate outwardly and with an upper, slight sinuation in the male; sharply tri-dentate in the female; tarsal joints sub-cylindrical on the upper side.

The genus, as now restricted, is found in Africa, Nubia, and Arabia.

Key to the Species.

A. Elytra with the apical part of the suture not acuminate.

B². Mesosternal process flat, more or less rounded in front.

C². Abdominal segments with white bands.

Upper side brownish red, sides of prothorax lighter than the disk, pygidium with a lateral white macule; abdominal segments with white bands .. .. *rufa.*

Upper side greenish black; prothorax with a broad yellow lateral band; elytra with a similarly broad yellow band all round, and also a post-median transverse fascia reaching the suture; pygidium immaculate or with 6 small white spots .. .. *sinuata.*

Upper side very broadly marginate with yellow, the black background of the elytra greatly reduced, post-median transverse fascia short, reaching the suture:

Upper side opaque .. .. *laticincta.*
Upper side shiny.. .. .. *bella.*

Prothorax broadly marginate with yellow and having also a median longitudinal band of the same colour; elytra broadly marginate with yellow, and having an ante-median yellow transverse band and a post-median one interrupted in the centre .. .. *cordata.*

Upper side opaque-green; prothorax and elytra with a broad yellow lateral band; sides of abdomen and pectus maculated with white .. .. *marginella.*

Upper side olive-green; prothorax with a broad lateral border and an arcuate basal band; elytra with a similar border and a transverse uninterrupted post-median band *rufovirens.*

Pale yellow; prothorax with 2 narrow black, median lines; elytra with 2 black patches, and a narrow arcuate transverse band on each side .. .. *picturata.*

B[1]. Mesosternal process long, deflexed, compressed, truncate at the tip.

Upper side testaceous-yellow, the prothorax darker and with a broad, lighter border all round; abdominal segments and pectus white .. .. *cincta.*

C[1]. Sides of abdomen and pectus with flavescent bands. Upper side olive green; prothorax with a broad yellow, lateral border; elytra with a similar border and with a post-median transverse fascia interrupted in the middle *impressa.*

PACHNODA RUFA, de Geer,
Plate XLIII., fig. 11.
Mém. Ins., vii., p. 640, pl. 48, fig. 1.

carmelita, Fabr., Mant. Ins., i., p. 28.
Gory and Perch., Monogr. Cét., p. 238, pl. 45, fig. 2.
frenata, Burm., Handb. d. Entom., v., 561.

Dark green, upper side somewhat opaque, chestnut-brown with the sides of the prothorax lighter than the disk (type) or fulvous

olivaceous with the sides of the prothorax and elytra flavescent (*frenata*); upper lobe of maxillæ dentate, tooth simple, inner lobe toothless; clypeus arcuately and somewhat deeply emarginate, much more closely punctate than the frontal part on each side of which is a white band; prothorax sparsely punctulate; scutellum impunctate; elytra with small, seriate punctures; pygidium with a transverse basal white band reaching from side to side, and a broader, slanting lateral one occasionally divided into two; each abdominal segments with a white band reaching from the upper part to three-fourths of the length, but as often as not interrupted at a short distance from the upper part, and occasionally with the lower portion obliterated; sides of pectus and epimera either completely white or maculated with white; femora streaked with white; sternal process horizontal, not ampliated, or rounded at the tip, and without suture; pectus and legs variolose punctate, femora and tibiæ fringed with flavescent hairs.

In the type form the white bands of the under side are often nearly obliterated; this form seems to be restricted to the South-Western districts of the Cape Colony. In Natal and the Orange River Colony, the colour becomes lighter, the thorax is greener, and it then resembles *P. cincta*, from which it is easily distinguished by the horizontal sternal process not compressed laterally.

Length 17–22 mm.; width 9–13 mm.

Hab. Cape Colony (the whole of the Eastern and Central Provinces, but not the Western part, to the east of Knysna) Natal, Transvaal, Southern Rhodesia (Manica, Plumtree, Bulawayo, Salisbury).

PACHNODA SINUATA, Fabr.,
Syst. Ent. App., p. 819.
Gory and Perch., Monogr. Cét., p. 182, pl. 32, fig. 5.

sinuosa, Lin., Syst. Nat. Ed. Gmel., i., 4, p. 1576.

punctato marginata, de Geer, Mém. Ins., vii., p. 639, pl. 47, fig. 20.

Var. *flaviventris*, Gory and Perch., Monogr. Cét., p. 178, pl. 31, fig. 6.

Greenish black on the upper side and either opaque or moderately shiny; head with or without a yellow, lateral band; prothorax with a broad yellow lateral band, a black spot in the anterior part, and with either three triangularly disposed yellow patches on the discoidal part or two only, or, oftener than not, entirely without; scutellum with two lateral macules or not, elytra with a broad yellow border, a black humeral spot, and another apical one, this border

emits past the median part a transverse yellow band stopping slightly short of the suture (*flaviventris*), and edging thus an elongate quadrate discoidal part which is either immaculate, or is marked with two yellow patches near the scutellary part; this band is also often interrupted in the middle, in which case the black dorsal part bears on each side two juxta-sutural yellow patches; pygidium brownish purple and with six minute white spots; under side either brownish red or black with a few yellowish macules, or bright yellow with the sides reddish, and a spot or a very short silvery band on the upper side of the abdomen and the epimera; clypeus closely aciculate, head sparingly punctate, the upper part is almost impunctate, except for a few faintly seriate punctures in the posterior part; glabrous underneath except on the prosternum; the last abdominal segment is closely aciculate, the others have a few lateral punctures; the sides of the pectus and legs are strigillate; the horizontal sternal process is almost orbicular and without suture.

This is the most protean of the South African Cetonids. The colour of the upper side changes from opaque velvety black to shiny olive-green; that of the under side varies equally, and is dark brown or almost black and with very few yellow macules in the species with opaque upper side in which the transverse post-median transverse band is interrupted, and bright yellow except along the upper sides in those in which the transverse band is entire.

P. flaviventris, Gory and Perch., is a variety in which the prothorax and scutellum are immaculate, the transverse band of the elytra complete and the discoidal background immaculate. I am of opinion that it is really the type form, and that *P. sinuata* is the variety. Kraatz has figured and described some 19 varietal forms (Deutsch. Entom. Zeitschr., 1885, p. 341, pl. v.). I could add to this number, but in all of them the genital clasps are absolutely alike.

Length 21–24½ mm.; width 12–15 mm.

Hab. The whole of South Africa, except the South-Western part of the Cape Colony; also Angola, and Central and Eastern Africa as far north as Somaliland.

PACHNODA LATICINCTA, Burm.,
Handb. d. Entom., v., 1847, p. 562.

? *arborescens*, Vig. Zoolog. Journ., ii., p. 238, pl. 9, fig. 4.

Black; upper side opaque; prothorax with a broad yellow band along the anterior and lateral margins, the width of that band is

about one-fifth of the whole, and in the anterior part there is a small black spot, often obliterated; scutellum black, elytra with a very broad yellow band invading the black background to such an extent that the latter is reduced to a quadrate dorsal patch more or less deeply incised on each side, prolonged for a short distance as a narrow band along the suture, and coalescing there with a transverse or slightly arcuate patch as broad as the anterior one but of only half the length, in addition to these two discoidal patches there is a lateral supra-marginal small black patch or spot situated past the median part; the pygidium is black with a flavescent triangular patch at apex; the under side is black and immaculate. Clypeus deeply emarginate in front, closely punctulate, frontal part deeply and numerously variolose punctate, punctures on the prothorax also numerous and deep; those on the elytra plainly seriate punctate in shiny examples, less distinctly so in the opaque ones; pectus and inner part of legs pubescent; sternal process horizontal, ampliate rounded laterally but only moderately deeply arcuate in front.

Length 15½–17½ mm.; width 9–9½ mm.

Hab. Transvaal (Waterberg), Southern Rhodesia (Middle Limpopo), British Bechuanaland (Macloutsie).

The figure of *P. arborescens*, Vigors, does greatly agree with this insect, the only difference being the absence of the post-median, supra-lateral round black patch.

PACHNODA BELLA, Kraatz,

Deutsch. Entomol. Zeitschr., 1898, p. 16, pl. ii., fig. 10.

picta (*Phoxomeloides*), Schoch., Schw., Ent. Ges., 1898, p. 109.

Very closely allied to *P. laticincta*, but very shiny on the upper side instead of being opaque, the black markings are exactly similar, and the prothorax appears more deeply and more numerously punctate, owing perhaps to the absence of the opaque indumentum; the pygidium is also flavo-rufescent in the centre. The genital clasps of the male, although of the same pattern as those of *laticincta* differ in being a little shorter and less slender in the anterior half.

Length 12½–15½ mm.; width 7–8 mm.

Hab. Cape Colony (Prieska, Kenhardt, Hay), Damaraland.

PACHNODA CORDATA, Drury,

Ill. exot. Ins., ii., 1773, p. 59, pl. 32, fig. 5.

olivacea, Gor. and Perch., Mon., p. 186, pl. 33, fig. 3.

circumscripta, J. Thoms., Typ. Ceton., 1879, p. 29.

Flavous, sub-opaque; frontal part, and occasionally the apex of

the clypeus which is deeply arcuately emarginate, black; prothorax with two median fusco-rufescent longitudinal bands acuminate at the apex and a supra-marginal spot of the same colour in the anterior part, the margin itself is very narrowly infuscate all round; scutellum with the sides narrowly fuscous; elytra with a quadrate discoidal patch deeply incised laterally and reaching short of the median part, continued as a narrow, sutural line and expanding past the middle in a transverse band wider than the anterior patch, and connected with a supra-apical transverse band of not quite the same width by a short, longitudinal patch, this apical band is sometimes disconnected near the suture, there is also a large humeral infuscate spot; the greatest part of the pygidium is flavescent, the margins being, however, darker. Head, clypeus, and prothorax deeply punctate, the punctures somewhat closely set; the elytra have shallow punctures indistinct on the sides, seriate and fairly distinct in the dorsal part; under side glabrous; abdomen sparsely and finely punctate, pectus deeply punctate; sternal process ampliate rounded laterally, somewhat bluntly rounded in front; pygidium transversely striolate. The tooth of the upper maxillary lobe is plainly bifid, and the inner lobe is slenderly dentate.

I cannot decide if *P. tridentata*, Oliv., is identical with *P. cordata*, Drury, but I find that the South African species of the latter are, even the females, more elongated than the examples from Kumasi and Senegal, the pattern of the fusco-rufescent bands or patches seems to be less variable, the shape of the genital valves of the males are absolutely similar.

Length 17–19 mm.; width 11 mm.

Hab. Southern Rhodesia (Sebakwe, Umtali, MtChirinda), Mozambique (Christmas Pass; Inhambane, teste Klug), N'Gami-land, teste J. Thomson.

PACHNODA MARGINELLA, Fabric.,
Syst. Entom., p. 46.
Gory and Perch., Monogr., p. 239, pl. 45, fig. 3.

cuneata, Klug, Monatsb. Berl. Acad., 1855, p. 660.

Green, opaque above, shiny underneath, antennæ rufescent; prothorax with a not very broad yellow border continued along the lateral and posterior margins; pygidium with two broad median longitudinal yellow bands divided by a narrow green band and a small white patch at each corner of the base; abdominal segments each with a short elongated whitish flavescent band on the upper

side and a longer one lower down, pectus, coxæ and side pieces with macules of the same colour. Elongated, depressed, clypeus and sides of head moderately punctulate; prothorax remotely punctulate, the punctures hidden by the coating; the scutellum is impunctate; in the dorsal part of the elytra the punctures are plainly seriate; the sides of the abdomen and pectus are punctate, each puncture setigerous; the horizontal sternal process is suborbicular and the suture plainly distinct. In the ♂ the under side of the tarsal joints is very densely hairy.

Length 20 mm.; width 10 mm.

Hab. Mozambique Lourenço-Marquez, Rikatla; Tette, teste Klug.

PACHNODA RUFOVIRENS, Qued.,
Berl. Entom. Zeitsch., 1884, p. 332.

? *discolor*, Kolb., Stett. Ent. Zeit., vol. 56, 1895, p. 278.

Flavous, with a triangularly elongated greenish-black band on each side of the head; prothorax with a crescent-shaped green patch the horns of which are directed backwards, and reaching the base, enclose there a part of the yellow background, narrowly marginated with fuscous, no black supra-marginal macule in the anterior part; scutellum with a narrow fuscous basal border; elytra with a discoidal, elongate quadrate, greenish-black patch continued at about the middle as a narrow sutural border and extending above the apical part into a broad transverse sinuate band slightly wider than the discoidal patch, between the two, but situated outside the dorsal costule, is a transverse spot the inner edge of which coalesces oftener than not with the posterior band; pygidium reddish brown, fuscous along the base and having four white spots transversely disposed; under side and legs either yellow with the upper border of the abdomen rufescent and a small yellowish macule on each segment, or rufescent but similarly maculated. The sculpture of the upper side is similar to that of *P. cordata*, but the sides of the pectus are more villose, and the sternal process more rounded in front.

The livery of this species closely approximates that of *P. impressa*, but in the latter, which is also differentiated by the shape of the sternal process, the green background has invaded the whole of the discoidal part of the prothorax, and also the scutellum. The shape of the genital armature of the two is strikingly dissimilar.

Length 17–18 mm.; width $9\frac{1}{4}$–$9\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury, Umtali).

PACHNODA PICTURATA, Bohem.,
Öfvers. K. Vet. Akad. Förh., 1860, p. 119.

Stramineous or flavescent on the upper side, chestnut-brown on the under side, shiny on both, antennæ chestnut-brown; head very closely aciculate on the clypeus and deeply punctate on the vertex; prothorax very broad, somewhat short, finely but not closely punctulate, in the median part of the prothorax are two slightly divaricating narrow longitudinal lines reaching the apex, but not quite the base, which has a very narrow black border; scutellum narrowly edged with fuscous; elytra with one discoidal black spot before the median part, another supra-lateral past the median part, a short arcuate band reaching the suture, set at some distance from the apex and an apical marginal transverse band on each side, the surface is very vaguely punctulate; pygidium chestnut-red and bearing six small, white spots; under side very sparsely pubescent; each abdominal segment has two very small white macules, and there are a few, also small ones, on the metasternum, sidepieces and legs; sternal process ampliate rounded laterally, bluntly arcuate in front.

This species is the most massive of the South African species of *Protætia*.

Length 19½–22 mm.; width 13–15 mm.

Originally described from the Lake N'Gami Region, this species is now recorded from Zanzibar and Tabora, in East Africa.

PACHNODA CINCTA, de Geer,
Plate XLIII., fig. 10.
Mém. Ins., vii., p. 641, pl. 38, fig. 3.

brachypinica, Gory and Perch., Monogr., p. 237, pl. 45, fig. 1.
burchelli, Fish., Mém. Mosc., vi., 1823, p. 256, pl. 22, fig. 3.

Dark green, moderately shiny only on the upper side, very shiny underneath; prothorax with a broad flavescent border, scutellum and elytra completely flavescent; head green with a lateral white band on each side reaching to a short distance from the apex of the clypeus, which is narrowly yet deeply emarginate, it is closely aciculate and the frontal part deeply punctate; prothorax deeply punctate, especially on the sides, the punctures are numerous but somewhat remote; scutellum impunctate; elytra with rows of very plain punctures in the dorsal as well as in the deflexed parts; pygidium dark green, rufo-flavescent in the centre, and with a broad, bi-sinuate basal

white band; abdominal segments with a non-interrupted silvery-white band running from the upper side to the centre; pectus and outer part of femora almost wholly white, especially the former; external process compressed laterally, aculeate, truncate in front and deflexed, inner part of legs somewhat densely fringed with light fulvescent hairs.

This species occurs in great abundance in the northern part of the South African area from east to west. It greatly resembles the lighter-coloured examples of *P. rufa*, which occurs also in the same localities. It is, however, easily distinguished by the shape of the sternal process, and that of the genitalia is very different. It does not seem to have been met with north of the Zambesi.

Length 19–22 mm.; width 11–13 mm.

PACHNODA (CONOSTETHUS) IMPRESSA, Goldf.

Enum. Ins. cap., 1805, p. 42, pl. 1, fig. 6.

Gor. and Perch., Monogr., p. 178, pl. 31, fig. 5.

colorata, Schönh., Syn. Ins., i., 3, p. 129.

leonina, MacLeay, Ill. Zool. Afric., iii., p. 50, pl. 1.

Very dark green, sub-opaque on the upper side, brownish-red underneath; clypeus rufescent, moderately emarginate in front, whole frontal part dark green; elytra with a fairly broad marginal yellow band enclosing past the median part a quadrate patch of the background, reduced sometimes to a mere spot, nearly in a line with it is a transverse yellow band reaching the suture and divided from the lateral yellow band by a narrow or somewhat moderately broad longitudinal green band; pygidium green and with seven rufescent white macules; abdominal segments each with an upper rufescent macule and a lateral band of the same colour; pectus and side-pieces maculated with yellow, antennæ and legs rufescent; clypeus closely punctulate; head with more distant punctures; the very remote punctures on the prothorax are partly hidden by the dull coating, the anterior margin is distinctly sub-tuberculate in the centre; scutellum impunctate, slightly impressed longitudinally at apex; elytra with a plain dorsal costule in the posterior part only, the discoidal part is distinctly punctate seriate, but not the sides; lower part of the body sparsely punctate along the sides; femora strigillate, tibiæ punctate; sternal process, aculeate, compressed laterally, deflexed and truncate at the apex.

Length 20–22 mm.; width 11–12 mm.

Hab. The whole of South Africa except the South-Western or Karroid districts of the Cape Colony.

Gen. RHABDOTIS, Burm.,

Handb. d. Entomol., iii., 1842, p. 526.

Mentum twice as long as broad with the outer face plane at the base, concave in front, hairy but not in the centre, nearly parallel laterally, but broadly rounded and deeply incised in the centre in front; upper lobe of maxillæ armed with a moderately curved tooth slightly bifid at the tip; inner lobe simple, densely pubescent; last joint of labial palps somewhat swollen, that of the maxillary sub-cylindrical; clypeus sub-parallel or slightly ampliated laterally, marginate all round, angles rounded, anterior margin deeply notched; prothorax with a sharp tubercle in the centre of the anterior margin; elytra elongated, sinuate laterally, very little attenuated behind and bearing a number of white lines and macules set in depressions on a green or black background; sternal process very long, curving slightly downwards, without suture; anterior tibiæ bi-dentate; the two basal joints of the hind tarsi strongly triangular outwardly; inner spur of the hind tibiæ somewhat dilated in the female.

Key to the Species.

A². Prothorax with only a rudimentary discoidal white line, or without any.

Elytra without a humeral diagonal entire white line.
Elytra with a large white spot on the humeral callus and two smaller ones underneath; the two basal joints of hind tarsi strongly spinose outwardly .. .. *albinigra.*

Elytra with a minute white spot on the humeral callus, and none underneath; the two basal joints of hind tarsi spinose outwardly .. .. *aulica.*

A¹. Prothorax with a complete discoidal white line.
Prothorax with four uninterrupted white lines; hind tarsi only moderately densely hairy inwardly .. .. *semipunctata.*

Prothorax with five uninterrupted white lines; hind tarsi thickly hairy inwardly .. .. *sobrina.*

Rhabdotis albinigra, Burm.,

Plate XLIII., fig. 1.

Handb. d. Entomol., v., 1847, p. 563.

albopicta, Boh., Ins. Caffr., ii., p. 35.

Black, moderately shiny; head immaculate, deeply and closely punctate, the punctures on the vertex are larger and less closely set than in the anterior part the margin of which is deeply notched; prothorax with the median tubercle of the anterior margin sharp,

moderately closely punctate, except in the median basal part where the punctures are fewer and more separated, the outer margin has a broad white band reaching from apex to base, and there is occasionally a rudimentary, short, discoidal white line, often reduced to a mere dot, and as often entirely wanting; the prothorax is more abruptly sloping in front than in the other species of the genus; elytra somewhat short, the suture is raised, there is a median distinct costule on each side, and a shorter, less defined one between the dorsal and the suture, they are covered with nearly seriate round punctures, and have each a large humeral white patch with a smaller one unconnected with it, and occasionally a third under it, two superposed transverse ones in the posterior part between the suture and the dorsal costa, along the outer margin, the upper one being the largest, and one or two smaller ones partly coalescing in most cases with a white line running along the margin from the base; pygidium with two large white macules; abdominal segments each with a small marginal macule and a broad band on each side, coxæ and epimera with a broad patch; metasternum entirely white; pectus and femora clothed with a greyish-white pubescence; abdominal segments sparsely villose; metasternum slightly grooved in the anterior part.

Length 15–18 mm.; width 8–11 mm.

Hab. British Bechuanaland (Macloutsie); Southern Rhodesia (Upper Limpopo, Umfuli River); Ovampoland.

In a small example which I believe to come from Ovampoland, the head has two small white spots at the base of the clypeus, there is only one humeral patch on the elytra, the marginal, sub-humeral band is very much reduced, and barely reaches the end of the sinuate part.

I have seen Boheman's type only, but I don't think that there is any doubt that it is identical with Burmeister's species.

RHABDOTIS AULICA, Oliv.,
Entom., i., 6, p. 15, pl. 2, fig. 7, pl. 8, fig. 67.
Gory and Perch., Monogr., p. 236, pl. 44, fig. 6.

caffra, Lin., Syst. Nat. Ed. Gmel. i., 4, p. 1578.
nympha, McLeay, Ill. Zool. Afric., iii., p. 51.
Var. *intermedia*, Burm., Handb. d. Entom., v., p. 563.
cyanea, Schoch., Entom. Nachr., 1896, p. 84.

Glossy green, with occasionally a slight flavescent tinge on the elytra; head somewhat closely punctate in front, and more broadly at the base, slightly impressed laterally from above the eyes to the

median part of the clypeus, the impression often covered with a white, interrupted band; prothorax sparingly punctulate, outer margin with a white band; scutellum impunctate; elytra somewhat massive, not costulate, irregularly punctulate and having on each side a white patch on the humeral callus, four transverse ones in the posterior part alongside the suture, five along the outer margin, a marginal white line running from the shoulder to short of the median part and coalescing often with the patch below it, and a sub-transverse sub-discoidal one situate between the upper two marginal and the upper two juxta-sutural macules; pygidium white with a green central band, and a slanting one on each side; under side reddish green, densely hairy, abdominal segments each with an upper patch and a longitudinal band; pectus white; sternal process grooved to a very short distance from the apex.

R. intermedia, Burm., seems to be a varietal form in which the prothorax has four white lines, and the elytra of which are maculate at the apex only.

The posterior dorsal white macules are often only very slightly indicated.

Length 21–22 mm.; width 11½–12 mm.

Hab. The whole of South Africa, except the south-western part of the Cape Colony; also East Central Africa.

RHABDOTIS SEMIPUNCTATA, Fabr.,
Plate XLIII., fig. 2.
Ent. Syst., i., 2, p. 140.

chalcea, Gory and Perch., Monogr., p. 235, pl. 44, fig. 5.

Smaller than the preceding, and a little more slender; the clypeus is very slightly emarginate in the centre, the punctuation is a little finer, the white band extends from the base of the head to nearly the apex of the clypeus; the very sparingly punctulate prothorax has a broad silvery-white marginal band and a slender, entire one on each side of the median part of the disk; the scutellum, which is oftener than not impunctate, is slightly grooved in the centre at the apex; the elytra, which are not costulate, and are irregularly seriate punctate, have a discoidal diagonal white band reaching to near the median part, four juxta-sutural white patches, the second of which is transverse, three alongside the outer margin, the apical one being plainly formed by two which have coalesced, an outer marginal white band running from the shoulder, a little longer than the discoidal one, and a round supra-marginal spot situated near the terminal part of this marginal band; pygidium white with a

central green longitudinal band, and occasionally another small slanting lateral band of the same colour; under side as in *R. aulica;* sternal process not grooved in the anterior part.

Var. *transvaalica.* Very dark green or occasionally dark blue; like the type form in build and sculpture, but noticeable by the slenderness of the wide bands, the macules are reduced to slender, transverse lines; the pygidium is white with three diamond-shape denuded spots and the pubescence underneath is silvery-white. This variety occurs in the Transvaal (Potchefstroom).

Length 14–17 mm.; width 7–10 mm.

Hab. The whole of South Africa.

RHABDOTIS SOBRINA, Gory and Perch.,
Plate XLIII., fig. 3.
Monogr., p. 234, pl. 44, fig. 4.

Var. *virginea*, Klug, Peter's Reis., 1862, p. 267, pl. 15, fig. 11.

Olive-green, shiny; more elongated than the preceding species; head punctate in the same manner but with the punctures deeper; prothorax also more deeply punctate, especially on the sides, in additional to the marginal and discoidal bands there is a fifth one in the very centre of the disk; scutellum impressed from base to apex, the line white; elytra with a diagonal dorsal white line and five white, juxta-sutural patches, the two ante-penultimate being transverse lines, the outer marginal band is short, below it are six marginal macules, and four seriate ones in the space extending slightly past the median part between the juxta-sutural and the outer marginal macules; pygidium white with three longitudinal denuded bands; sternal process grooved to the apex; under side as in *R. semipunctata;* inner part of tibiæ and under side of tarsi very densely hairy; the pubescence on the pectus and legs is flavescent.

Length 19–22 mm.; width 10–11½ mm.

Hab. British Bechuanaland (Macloutsie); Southern Rhodesia (Salisbury, Umfuli River, Matopos, Victoria Falls); Mozambique (Tette); also East Central Africa, Somali, Kordofan, &c.

GROUP ELAPHINISII.

GEN. ELAPHINIS, Burm.,
Handb. d. Entomol., iii., 1842, p. 595.

Mentum sub-oblong, palps cavity very broad and shallow, the apex is deeply incised; maxillæ long, slender, upper one with a long

pencil of hairs, the inner densely pubescent, last joint of both palps cylindrical; clypeus slightly alternate in front, the outer angles are moderately rounded, and the apex more or less deeply sinuate; antennal club of male not as long as the pedicel; prothorax sub-trapezoidal, not distinctly arcuate above the scutellum which is sharply acuminate, but only one-third longer than broad at the base; elytra robust, bi-costate on each side, each of the two intervals geminate striate; sternal process projecting slightly beyond the coxæ and transversely ampliate there; anterior tibiæ uni-, bi-, or tri-dentate, when not uni-dentate the two apical teeth are set close to each other; tarsi moderately long, the basal joint of the hind ones normal in both sexes.

Key to the Species.

A³. Anterior tibiæ tri-dentate in both sexes.

Head and disk of prothorax bronze-green; elytra testaceous, maculated with black spots .. .. *tigrina.*

A². Anterior tibiæ bi-dentate in the ♂, tri-dentate in the ♀.

The two teeth of the fore tibiæ set very close to each other (♂), upper side flavo-testaceous, prothorax and elytra pluri-maculate with black .. .. *nigropunctulata.*

A¹. Anterior tibiæ uni-dentate in the ♂, bi-dentate in the ♀.

Head black, upper side flavo-testaceous, disk of prothorax and elytra maculated with black .. .. *barbertonensis.*

ELAPHINIS TIGRINA, Oliv.,

Entomol., i., p. 91, pl. 12, fig. 112.

Gory and Perch., Monogr., p. 272, pl. 53, fig. 2.

furvata, Fabric., Ent. Syst. Suppl., p. 130.

Æneo-rufescent, with the head somewhat infuscate, sub-opaque on the upper side; the prothorax is either totally dull bronze-green on the disk with the sides flavous testaceous, or the bronze patch is divided into several longitudinal bands more or less coalescent in the centre, and splashed with irregular, small whitish macules which are often absent; the scutellum is testaceous yellow marginated with fuscous; and the elytra, which are also testaceous yellow, have on each side three or four rows of black macules; the pygidium is also maculated with fuscous. Head and clypeus closely punctate, the latter part is only slightly attenuate in front with the outer angles moderately rounded and the anterior part somewhat broadly emarginate, each puncture bears a very short hair; prothorax very closely punctate, the punctures fine and deep; scutellum impunctate;

elytra not distinctly punctate, and without any traces of white coating, the two costules are very distinct, and the two first dorsal intervals have each two geminate striæ ; the under side is very shiny, the sides of the abdomen are either maculated or banded with an ochraceous flavescent coating; the pectus and femora are clothed with a light fulvous, dense pubescence ; the anterior tibiæ are tri-dentate in both sexes, the two apical teeth are set very close to each other, and the third is remote ; in the female the spurs of the hind tibiæ are very little thicker than in the male, and the basal tarsal joint not spinose or widely broadened outwardly.

Length 10–14 mm. ; width 7–8 mm.

Hab. Cape Colony (Knysna, Uitenhage, Graham's Town, Port Elizabeth, the whole Transkei) ; Natal (Durban, Frere, Karkloof, Maritzburg) ; Transvaal (Pretoria).

ELAPHINIS NIGROPUNCTATA, Péring.,
Trans. Entom. Soc. Lond., 1896, p. 163.

This species is very closely allied to *E. tigrina*, and the facies is very much like that of a *Protætia*. The upper side is light testaceous yellow, but the frontal part of the head is black ; the prothorax has in the centre two longitudinal rows of three macules each, two similar ones on each side and one in the centre of the base ; the elytra are maculated with black in the manner of *E. tigrina ;* the pygidium is of the same colour as the elytra and immaculate, the antennæ are flavo-rufescent ; the anterior tibiæ are bi-dentate with the teeth set close to each other in the male, but tri-dentate in the female as in *E. tigrina*, from which this species differs mostly in the larger size, much lighter colour, the evenness of the black markings on the thorax, although these may be found to be more variable than in the examples which I have seen, and in the total absence of cretaceous coating even on the under side. The shape of the genital armature of the ♂ is very similar in both species, but the lateral margin is more carinate at apex in *E. nigropunctata.*

Length 15–17 mm. ; width $7\frac{1}{2}$–$9\frac{1}{2}$ mm.

Hab. Transvaal (Lydenburg, Barberton).

ELAPHINIS BARBERTONENSIS, n. sp.

Æneous black, upper side very light testaceous yellow ; head black ; prothorax with four fuscous macules on the disk, and a smaller one above the median part of the base, or with nearly the whole surface of the disk suffused with æneous black ; scutellum totally or partly black ; elytra with two or three rows of black

macules, moderately large with smaller ones intervening. The livery, sculpture, and vestiture are very similar to those of *E. nigropunctata*, the size is very much smaller, the clypeus especially in the male is more oblong with the angles more rounded, and the fore margin more deeply scooped but also more raised; the anterior tibiæ of the male are dentate at apex only and sinuate above the tooth; those of the female are bi-dentate, but the teeth are not closely set, and there is only a slight upper sinuation; the pectus and femora are densely hairy, the hairs flavescent; the black pygidium is occasionally splashed with a cretaceous coating.

Length $9\frac{1}{2}$–$10\frac{1}{2}$ mm.; width $5\frac{3}{4}$–6 mm.

Hab. Transvaal (Barberton).

(*Species which I have not been able to identify.*)

ELAPHINIS CARINICOLLIS, Kr.,
Deutsch. Entomol. Zeits., 1895, p. 382.

"Similar to *E. tigrina* Oliv., but more obscure, under side fuscous, greenish bronze, shiny, upper side opaque; the densely punctate head and the prothorax are greenish, the latter is concolorous, subcarinate from the median part to the apex, sometimes rufous translucid above the scutellum; elytra rufous brown, tessellate with black; pygidium closely striolate, variegated with white, anterior tarsi sub-tridentate.

Length 13 mm.

Hab. Caffraria."

Most probably a slight variety of the very variable *E. tigrina*.

GROUP PORPHYRONOTII.

In this group are included insects with a depressed, sub-hexagonal prothorax, and with entire, impunctate, geminate striæ on each interval of the elytra; they are remarkable by their livery, which is rufescent-brown or testaceous tessellated with fuscous. The maxillæ are either simple or plainly dentate; the hind tibiæ of the genus *Porphyronota* are serrate spinose on the upper side; the clypeal anterior angles are moderately rounded or reflexed.

GEN. NIPHETOPHORA, Kraatz,

Deutsch. Entom. Zeitschr., 1883, p. 384.

Oxyrrhaphia, Kolbe, Stett. Ent. Zeit., 1895, p. 279.

Mentum short, broader than long, hardly sinuate in front, maxillæ

long, slender, the lobes inermous, the upper one with a long pencil of hairs; last joint of labial palps slightly swollen outwardly, that of the maxillary cylindrical; clypeus sub-parallel, being slightly narrower at apex than at the base, the outer angles are slightly rounded, and the anterior margin reflexed; antennæ normal; prothorax sub-trapezoidal, strongly arcuate above the scutellum which is long and sharp; elytra elongated, depressed, plainly attenuate behind, with the suture sharply raised and very sharply acuminate and projecting at apex; propygidium sharply marginate at apex, the margin slightly overhanging the pygidium which is of normal shape; anterior tibiæ sharply dentate outwardly at apex and bi-angular above the tooth in the ♂, bi-dentate and with a slight sinuation above the second tooth in the ♀; tarsi normal; sternal process arcuate ampliate, projecting beyond the coxæ somewhat in the manner o *Protætia.*

NIPHETOPHORA CARNEOLA, Burm.,
Handb. d. Entomol., v., 1847, p. 559.
Bohem., Insect. Caffr., ii., p. 31.

hildebrandti, Har., Monats. Akad. Wiss. Berl., 1878, p. 213.
maculipes, Kraatz, Deut. Ent. Zeit., 1883, p. 384.
spinipennis, Fairm., Ann. Soc. Ent. Fr., 1887, p. 132.

Fuscous metallic underneath, opaque above, the upper side and legs light cinnamon colour, maculated with numerous small fuscous spots and sprinkled with still more numerous minute white dots; on the prothorax are traces of two discoidal fuscous, narrow bands; the pygidium bears numerous white patches, each of the abdominal segments are similarly maculated, and so are the sides of the pectus; head with a median carinule separating two broadly pitted impressions; clypeus finely punctate; prothorax moderately closely variolose punctate on the sides and in front, but with only very few shallow punctures in the centre and above the base, and clothed with a very fine and very short greyish pubescence on the sides of the disk; scutellum briefly fringed with greyish hairs along the base, impunctate; elytra very plane and having on each side two very flat costules, the three dorsal intervals have each two geminate, non-punctate striæ, the background is very finely aciculate, the suture is produced into a long, triangular spine, which varies, however, greatly in length in the male, this spine is shorter, or very short, in the female; pectus cicatricose punctate, each puncture bearing a squamose hair; legs roughly punctate, briefly pubescent.

Length 10–15½ mm.; width 6–8 mm

Hab. Cape Colony (Kimberley); Orange River Colony (Vredeford); Transvaal (Lydenburg, Pietersburg, Waterburg, Pretoria, Leysdorp, Rustenburg); Natal (Weenen, Durban); Bechuanaland (Ramoutsa); Southern Rhodesia (Bulawayo, Salisbury, Upper Limpopo, Enkeldoorn, Sebakwe).

NIPHETOPHORA RHODESIANA, n. sp.

Rufescent metallic on the under side, light testaceous opaque on the upper; frontal part fuscous-green maculated with white; prothorax with two longitudinal, median, fuscous-green bands and a supra-basal median spot, sides maculated with fuscous green, the macules interspaced with numerous white dots; scutellum concolorous; elytra very numerously maculated with fuscous spots forming an irregular patch and sprinkled over with equally numerous white dots; antennæ sub-rufescent, antennal club nearly as long as the pedicel in the male; clypeus closely punctulate, frontal part punctate on each side only; on the prothorax the punctures are not very closely set, and on the sides they are filled with a white coating, irrespective of the white splashed dots; scutellum impunctate; elytra uni-costate, the inner dorsal costa is geminate striate, and the suture which is highly carinate behind ends in a distinctly long spine; pygidium punctulate and with short, appressed, scale-like hairs and sprinkled with minute white spots; sides of abdominal segments with a white macule, punctate, the punctures squamose.

I have seen one male example only.

Length 11½ mm.; width 6 mm.

Hab. Southern Rhodesia (Umtali).

GEN. PORPHYRONOTA, Burm.,
Handb. d. Entomol., iii., 1842, p. 622.

Poecilophila, Kolbe, Stett. Ent. Zeit., 1893, p. 210.

Mentum sub-parallel, convex at the junction with the ligular part, slightly sinuate in front with the outer angles moderately rounded, and twice as long as broad; last joint of palps of the normal shape; maxillæ not very robust, provided at the tip with a short, bifid tooth, the diverging points of which coalesce on the left maxilla, and with a small inner tooth partly hidden by the thick fringe of hairs lining the inner part for half the length; clypeus moderately acuminate, scooped more or less deeply in front, and with the outer angles triangularly recurved; prothorax diagonally ampliated from

the apex to about the median part, sinuate thence to a short distance from the moderately rounded basal angle, where it is as broad as across the median part; prothorax elongated, but not sharply acuminated at tip; elytra depressed, more or less plainly bi-costate; prosternal process with a distinct suture or not, and more or less bluntly acuminate; anterior tibiæ sharply tri-dentate, inner part of tibiæ pubescent; intermediate tibiæ strongly bi-dentate on the upper side, serrate or pluri-dentate on the posterior ones.

Kolbe's characteristics of the genus *Poecilophila* are the shape of the clypeus, and the absence of a spine on the upper part of the hind tibiæ. While this character holds good for two of the species, it certainly does not for the third (*carnifex*), which, however, cannot be separated from the other two, and was included by Burmeister in the genus *Porphyronota*.

Key to the Species.

Posterior tibiæ pluri-dentate on the upper side	(PORPHYRONOTA.)
Suture of prosternal process obliterated, the process blunt ..	*carnifex*.
Posterior tibiæ serrate on the upper side	(POECILOPHILA.)
Suture of prosternal process very distinct, process aculeate; metasternum punctate in the centre	*hebræa*.
Prosternal process more sharply aculeate and shorter; metasternum nearly impunctate in the centre	*maculatissima*.

P. CARNIFEX, Fabr.,
Plate XLIII., figs. 4 and 5.
Gory and Perch., Monogr., p. 124, pl. 18, fig. 2.
Spec. Ins., i., p. 53.
lanius, Voet., Col., i., p. 13, pl. 2, fig. 16.
rauca, Fabr., Spec. Ins., ii., App., p. 496.
Var. *variegata*, Boh., Ins. Caffr., ii., p. 43.

Type. Brick-red, turning sometimes to cinabar-red on the upper side, nearly opaque; clypeus infuscate at tip, closely and deeply punctate, antennal pedicel reddish; prothorax slightly ciliate along the margin in the anterior part, sub-foveolate punctate, the punctures somewhat cicatricose and moderately scattered, there are ten irregular black patches on the disk; scutellum fuscous, and with a series of deep punctures on each side; elytra somewhat ampliated in the anterior part, sinuate in front of the side-pieces, narrowed behind and having on each side three plain striæ the outer of which is cicatricose punctured in the anterior part only, next to that punctured part

there are also two or three series of similar punctures reaching from the base to about one-fourth of the length or further down, and the three alternate intervals are sub-tectiform or even tectiform, there is a black, irregular tessellation; pygidium aciculate plicate; under side glabrous except the prosternal part, black maculated with red, the sides of the pectus and also the legs are irregularly foveate punctate, the metasternal part is also roughly punctate and deeply grooved, the receding aculeate mesosternal part is smooth and triangular, and the suture is nearly always obliterated; intermediate tibiæ with two sharp teeth, hind ones with four long, sharp ones set at about the median part, sometimes also with six.

The variety *variegata*, Bohem., is usually much darker than the type form, that is to say the black tessellation has invaded the upper and under surface, and there is thus a red instead of a black tessellation; and the four or six teeth on the upper side of the hind tibiæ are serrate rather than dentate; the punctuation on the prothorax is certainly broader and deeper, and on that account the punctures are closer to each other, and the seriate rows of cicatricose punctures on the elytra reach further down, but the size or depth of these punctures is very variable; the shape of the genital clasps of the male (pl. xliii., fig. 4) are similar; fig. 5 (type form) is not quite correct. An example from Frere, Natal, is as red on the upper side as the type form.

This species is met with only under dry cow-dung, and it seems to be always solitary.

Length 17–18 mm.; width $10\frac{1}{2}$–11 mm.

Hab. Cape Colony (Cape Town, Worcester, Knysna, Malmesbury, Dordrech); Natal (Frere).

P. HEBRÆA, Oliv.,
Plate XLIII., fig. 7.
Ent., i., 6, p. 89, pl. 12, fig. 115.
Gor. and Perch., Monogr., p. 125, pl. 18, fig. 3.

Shape of the preceding species, but smaller and with the clypeal part more acuminate in front, and the angles more sharply upturned; the colour is more flavescent, and the black macules more numerous; the sides of the prothorax are not sparsely villose, or serrulate; the punctures on the disk are greatly scattered, and although deep, not cicatricose; the scutellum is sparingly punctate, and sometimes not at all; the striæ on the dorsal part of the elytra are very plain and the third interval plainly tectiform; pygidium briefly pubescent towards the apical part, finely plicate; under side

glabrous, except on the mesosternum, roughly punctate like the legs; sternal process smooth, triangularly aculeate, and with the suture visible on the sides; metasternum plainly punctate in the centre; outer upper ridge of hind tibiæ serrulate all along its length, all tibiæ densely fringed with light fulvous hairs.

Length 17–18 mm.; width 10 mm.

"Feeds on various flowering shrubs and roses (Natal). I have not yet seen it on flowers in Salisbury, but only feeding on the stems of various herbaceous plants, also on *Combretum*" (G. A. K. Marshall). It is principally a grass insect in Natal (C. N. Barker).

Hab. Cape Colony (Kimberley, Graham's Town, East London, Port St. John); Natal and Transvaal, almost everywhere; Southern Rhodesia (Salisbury, Mazoe, Enkeldoorn, Umtali); Mozambique (Beira, Lourenço-Marquez). The whole of Eastern and East Central Africa as far as Abyssinia; also Angola.

P. MACULATISSIMA, Bohem.,
Plate XLIII., fig. 6.
Oefv. K. Vet. Akad. Förh., 1860, p. 120.

Distinguished from the preceding species by the more parallel and more elongated shape and more depressed elytra, the tessellation is also darker and the spots more numerous; every abdominal segment has a lateral fascicle of flavescent hairs, the metasternal process is smooth in the centre, and the mesosternal is as broadly triangular but distinctly shorter, and the suture is very well defined all round; the shape of the genitalia of the male is different, and the habits of the two species do not seem to be the same. Marshall writes that it is found under the bark of dead *Acacia*, and on *Acacia* gum; and Barker says that it has arboreal habits in Natal, differing in that respect from *P. hebræa*.

Length 16–19½ mm.; width 8½–10 mm.

Hab. Eastern part of the Cape Colony, the whole Transvaal and Natal; Southern Rhodesia (Salisbury, Mpudzi River); Eastern and East Central Africa; Central Congo, Angola.

CHIRINDA, n. gen.

Strictly speaking this genus differs from *Porphyronata* merely by the shape of the clypeus, which is parallel and only slightly sinuate in front with the anterior angles slightly rounded and not reflexed; the intermediate and posterior tibiæ are uni-dentate on the upper side, and the latter are weakly serrate; the inner part is not densely ciliate.

Key to the Species.

Upper side covered with a velvety-black tomentum, maculated with sienna; mesosternal process truncate in front and with a distinct porrect tooth above the apical truncate part .. .. *sylvatica.*

Upper side red, tessellated with black, prosternal process normal, somewhat sharply aculeate .. .. *okovanga.*

CHIRINDA SYLVATICA, n. sp.

Plate XLVII., fig. 28.

Shape of *P. maculatissima* but a little smaller; upper side covered with a velvety-black tomentum variegated with numerous small, yellow-ochre markings, much in the manner of *P. maculatissima;* under side black; clypeus with the angles rounded laterally, and slightly wider at the apex than at the base, weakly sinuate in front, and marginate all round; head and clypeus deeply punctured, the former with a few ochraceous markings; prothorax sinuate laterally from about the median part to the base, the margin serrulate, the discoidal part is deeply cicatricose punctate, but the punctures are hidden by the velvety tomentum; scutellum roughly punctate at the base; elytra elongated, striate, the third interval highly tectiform, the fifth costate, the tomentum hides also the elongated, moderately shallow punctures, and forms on each side three triangularly disposed, darker patches at about the median part; pygidium strigillate, sparingly maculated with yellow ochre; abdomen glabrous, punctate; pectus punctate and briefly pubescent, the pubescence black, metasternum punctate in the centre, grooved, metasternal process without suture, bluntly aculeate, and produced above the aculeate part into a short conical, porrect tooth; inner side of tibiæ moderately pubescent, intermediate and posterior ones uni-dentate, upper side of the latter closely serrulate.

Length 15–16½ mm.; width 9–9½ mm.

Hab. Mozambique (Chirinda Forest, Gazaland).

Mr. G. A. K. Marshall writes of this species, which he discovered, that he "found it flying in the dense forest, and settling on fallen, rotten tree-trunks, into which they were burrowing."

CHIRINDA OKOVANGA, n. sp.

This species might at first sight be taken for a small example of *P. carnifex*, var. *variegata*, except for the shape of the clypeus. Head black, prothorax brick-red with two small black macules in

the anterior part of the disk, one on each side; scutellum black; elytra red, but with irregular transverse black bands forming with the red background a tessellation in which the black patches are broader than the red; under side and legs black, abdomen with a lateral series of reddish macules; head and clypeus covered with confluent, elongated punctures the walls of which form a network; prothorax covered with a similar network, but the walls of the punctures are somewhat obliterated in the central part of the disk, the punctures being there strongly cicatricose; apical part of scutellum impunctate; elytra distinctly bi-costate and with a third rudimentary costa on each side, the first two intervals are separated by geminate lines, the others by several turning on the sides to a duplicate series of oval, cicatricose punctures; pygidium strigillate; abdomen distinctly punctate; pectus strongly punctate and very briefly pubescent; median part of metasternum punctate, mesosternal sharply aculeate, the triangular suture well-nigh obliterated.

Length 13½ mm.; width 7 mm.

Hab. Ovampoland (Okovango River).

I have seen one example only (♀).

Group DIPLOGNATHII.

I include in this group two genera characterised by the shape of the clypeus which is carinate laterally, the angles being sharply angular, or projecting considerably beyond the anterior margin in both sexes.

Gen. DIPLOGNATHA, Gory and Perch., Monogr. d. Cét., 1833, p. 31.

Mentum very convex, sinuate in the anterior part, with the outer angles rounded; maxillæ robust, upper lobe short, produced in two strong, hamate teeth and with a dense pencil of hairs outwardly, inner lobe hairy inwardly and armed with a sharp hooked tooth; clypeus carinate laterally and with the outer angles acuminate and reflexed; prothorax gradually ampliated laterally as far as the median part, sinuate thence to the base; the latter very slanting on each side; scutellum sunken, sharply acuminate; elytra elongated, non-costate or striate; sternal process aculeate acuminate, without suture; anterior tibiæ tri-dentate, intermediate and posterior uni-dentate; the inner part densely ciliate.

DIPLOGNATHA GAGATES, Fabric.,
Plate XLIII., figs. 8 and 9.
Syst. Entom., p. 49.

Var. *D. silicea*, McLeay, Ill. Zool. Afric., iii., p. 22.

Shiny, black, glabrous; head and clypeus almost impunctate, or very obsoletely punctulate; prothorax impunctate in the discoidal part, but finely aciculate on the sides, the margin of which is distinctly serrate and briefly ciliate, the arcuate emargination above the scutellum is also ciliate, scutellum impunctate; elytra quite smooth, without any traces of striæ or costules; pygidium very finely aciculate plicate; under side glabrous except on the prosternum, the median part of the metasternum is impunctate and slightly grooved except in the anterior part; tibiæ coarsely punctate.

Length 21–28 mm.; width 12–15 mm.

Fairmaire has rightly pointed out that there is a difference between the type form and its variety. In *D. gagates* the upper side of the intermediate tibiæ bears two teeth, while in *D. silicea* there is one only. This character does not hold good throughout, because I have been able to verify the partial obliteration of one of these teeth in some examples of *D. gagates* from Komasi. Moreover, the shape of the genital clasps of the ♂ is identical in both the typical and the varietal form;* and this is, after all, the true test. The variety *silicea* is found all over Southern, Eastern, and Central Africa, whereas the type form *gagates* would appear to be restricted to the Western coast only, from Senegambia to Loanda. The South African examples are usually larger than the others.

I have bred this species from the nest of a hawk, *Buteo jakal;* the larvæ feed on the excrements, and use also this material for making their cocoon. I found no less than 29 of these cocoons in one nest.

GEN. APOCNOSIS, J. Thoms.,
Typ. Cetonid., p. 30.

Mentum parallel, truncate at apex with the outer angles slightly rounded; maxillæ robust, outer lobe with two strongly hamate teeth at apex, inner lobe ending in a similar tooth, and not densely ciliate inwardly; clypeus sharply carinate laterally, parallel, produced on each side of the anterior part in a reflexed, quadrate tooth-like process projecting beyond the straight anterior margin; prothorax

* The figure of *D. gagate*, pl. 43, fig. 8 is wrong, the apex having become contorted through the example to which it belonged being slightly immature.

narrowed laterally in the anterior part, and not sinuate in the posterior, hind angles broadly rounded, base nearly straight; scutellum long and sharp; elytra elongated, narrowing behind, plane, pluri-costate; sternal process long, aculeate, and without suture; anterior legs tri-dentate, intermediate and posterior ones uni-dentate; tibiæ sparsely ciliate inwardly.

This genus includes one species only, originally described from Nyassaland.

APOCNOSIS STRIATA, Jans.,
Plate XLVII., fig. 6.
Cist. Entomol., ii., p. 263.

brunneonigra, J. Thoms; Typ. Ceton., p. 30.

Shiny, black, but occasionally rufescent, especially the elytra; clypeus with broad but shallow fossæ in the anterior part, and shallow impressions in the posterior, somewhat villose in the apical part and also on the vertex; prothorax covered with fairly deep punctures which are broader and more elongated on the sides, the outer margin is slightly serrate; scutellum sunken, impunctate; elytra deeply striate and with the intervals plainly raised; pygidium aciculate; under side glabrous, except on the femora; sternal process grooved longitudinally as far as the prosternal part which has no suture, the whole median part is impunctate; legs and sides of pectus roughly punctate.

Feeds on gum of *Acacia* and *Combretum* (G. A. K. Marshall).

Length 18–24 mm.; width 10–12 mm.

Hab. Natal (Weenen); Transvaal (Barberton); Southern Rhodesia (Salisbury, Umtali, Matopos, Mt. Chirinda, Manica).

SUB-TRIBE LEUCOCELITES.

The insects grouped in this Sub-Tribe are distinguished by the sculpture of the elytra. There is always a basal longitudinal impression inside of the humeral callus, the first, or the first and second dorsal intervals begin with two rows of punctures which from the median part to the apex turn into two geminate impunctate striæ; these geminate striæ may not be always well defined in the second interval, but they are always clearly seen in the first. There is a tendency for the first costa or costule to disappear after the median part, the exception among the South Africa genera being *Clinteroides* and *Tephræa*, but these two genera form a connecting link with *Pseudoclinteria*, and thus

unite the *Goliathites* with the *Leucocelites*. It is worthy of note that in these two genera, and also in *Pseudoprotætia*, the shape of the basal joint of the hind tarsi is that of the *Goliathites*, but I have already explained that I subordinate this character to the mode of sculpture of the elytra, in spite of the somewhat robust facies of the species belonging to the above-named genera; in the other genera this basal joint is rounded at apex, but in *Homalothyrea*, the whole facies and colouration of which is that of *Leucocelis*, this joint is elongated and dentiform in the ♀, but short and only acute in the ♂. The sexual differences are not easily distinguishable, but in *Mausoleopsis* the claws of the anterior tarsi of the ♂, and in some species of the same genus the hind tibiæ, differ in shape from those of the ♀. In *Pseudoprotætia* the shape of the clypeus is slightly different in the two sexes.

Key to the Genera.

A². Basal joint of hind tarsi sharply angular or spinose outwardly in both sexes.

B². Basal part of prothorax covering the greatest part of the scutellum.

C. Inner costa of elytra not obliterated in the posterior part.

*a*². Maxillæ toothless, and provided with a long pencil of hairs.

Body somewhat massive, pubescent underneath and sometimes above; sternal process bluntly knobby *Clinteroides*.

B¹. Basal part of prothorax normal, plane, arcuate above the scutellum.

*a*¹. Maxillæ dentate on the upper side, which is also penicillate with hairs.

Body depressed, attenuate behind, punctures on the elytra strongly cicatricose, sternal process constricted between the coxæ, transversely arcuate .. .. .. *Tephræa*.

Body massive, not much attenuated behind, upper maxillary lobe strongly bi-dentate, sternal process constricted, transversely arcuate, inner costa of elytra transversely coalescing with the outer in the centre.. *Pseudoprotætia*.

A¹. Basal joint of hind tarsi not angular or spinose outwardly.

B². Basal part of the prothorax normal, sides of scutellum deeply sunk.

C². Sternal process not marginate in front.

D³. Inner costa of elytra obliterated in the anterior part, post-scutellary region strongly depressed.

Maxillæ sub-mucronate.

Body moderately attenuated behind, clypeus rounded laterally, body quite black, prothorax with 6 broad, deep impressions, sternal process cuneiform .. .. *Trymodera.*

B¹. Basal part of prothorax normal, scutellum plane, sharply triangular.

D². Inner costa of elytra not quite obliterated in the posterior part.

Maxillæ simple, penicillate.

Body moderately attenuated behind, sternal process long, plane, sub-hamate at the tip .. *Lipothyrea.*

D¹. Inner costa of elytra obliterated past the median part.

*a*². Maxillary upper lobe uni-dentate, penicillate.

Body plainly attenuated behind, base of prothorax moderately arcuate above the scutellum .. .. *Polystalactica.*

*a*¹. Maxillæ simple, penicillate.

Body moderately attenuated behind, prothorax ampliate rounded laterally, very slightly projecting in the centre of the base *Glaucocelis.*

C¹. Sternal process plainly marginate in front.

a. Maxillæ inermous and provided with a long pencil of hairs.

*b*². No sexual differences.

E² Body not strongly attenuated behind; clypeus sub-truncate, not emarginate in front.

*c*³. Basal part of prothorax arcuate above the scutellum.

Body plane, lateral part of the base of the pro-thorax plainly angular; sternal process sub-triangularly arcuate; livery black and white. .. .. *Lonchothyrea.*

*c*². Basal part of prothorax not arcuate above the scutellum.

Body moderately deplanated, base of prothorax rounded laterally, sternal process bluntly arcuate; livery black and white .. *Leptothyrea.*

E¹ Body strongly attenuated behind, clypeus long, attenuated and emarginate or incised in front.

*c*¹. Basal part of prothorax straight above the scutellum.

Upper part of the body metallic; elytra green, greenish, blue, sometimes red, seldom black.

e^2. Basal joints of hind tarsi not dilated nor spinose outwards.

Sternal process comparatively short, sub-arcuate at apex .. .. } *Leucocelis.* *Erythroderma.*

e^1. Basal joint of hind tarsi dilated outwardly *Homalothyrea.*

Body black and white, not metallic.

Sternal process longer.

b^1. Sexual differences.

Inner claw of fore tarsi conspicuously longer and somewhat malformed in the ♂; hind femora of same sex often arcuate .. *Mausoleopsis.*

Gen. CLINTEROIDES, Schoch.,
Mith. Schw. Ent. Gesells., x., 1898, p. 102.

This genus is differentiated from *Pseudoclinteria* by the more obtuse and quite horizontal sternal process, the deeply punctate prothorax, the elytra strongly bi-costate on each side with two geminate strioles in each interval, and the plainly triangular basal joint of the hind tarsi in both sexes.

The genus seems to be restricted to South Africa, but one of the species is probably a straggler from East Central Africa.

Key to the Species.

Upper side glabrous; prothorax without a supra-basal longitudinal median keel .. .. *permutans.*

Upper side briefly pubescent; prothorax with a supra-basal longitudinal median keel .. .. *cariosa.*

Clinteroides permutans, Burm.,
Handb. d. Entom., v., 1847, p. 554.

borni, Schoch., Mith. Schw. Ent. Ges., 1894, p. 188.

Type. Black, glabrous on the upper side, the prothorax with a moderately narrow lateral marginal white band; elytra black, sprinkled with white spots varying in number from 15 to 10; pygidium with 4 or 6 white spots; abdominal segments occasionally with a few white macules and with or without a white lateral band. The colouration of this type form is the rarest; in most examples the

prothorax is red, and the elytra black, or rufescent in the anterior part; occasionally, although seldom, the elytra are rufescent with a broad sutural band fuscous black; the number of white macules is most irregular, and the two apical ventral segments are rufous in these varietal forms. Head very closely punctulate, the punctures on the frontal part slightly broader than on the clypeus; prothorax with a very slight longitudinal median keel in the anterior part, the pointed, central basal part is slightly depressed at the apex, the surface is covered with deep, moderately remote punctures; elytra with the suture raised and with two high costæ on each side, the space between the suture and the first costa has two geminate striæ, and there are two in the second interval also but running from the median part only; the anterior is punctate, and so is the humeral part and the deflexed sides; pygidium closely aciculate; abdomen sparsely cicatricose punctate; pectus moderately densely hairy, strigillate punctate.

Length 12–14 mm.; width 7–8¼ mm.

There is no end to the variation in colour of this species. I know of a varietal form with the prothorax red and having two elongated triangular discoidal black patches. I have verified the identity of *C. borni* with *C. varians* from an examination of Schoch's type.

Hab. Transvaal (Rustenburg, Northern Transvaal), the whole of Rhodesia, Cape Colony (Kimberley).

CLINTEROIDES CARIOSA, Jans.,
Cistul. Entom., ii., 1877, p. 247.

hirta, Schoch., Mith. Schw. Ent. Ges., 1898, p. 102.

Black, moderately shiny; head and prothorax briefly pubescent; elytra with seriate, remote, greyish setulose hairs mixed with a few squamiform, lanceolate white ones, each elytron with small white spots varying in number from nine to twelve; head very closely punctate; prothorax covered with rugose sub-contiguous punctures divided by a slightly raised wall on the sides, in the centre there is a raised longitudinal keel, almost obliterated in the anterior part but very distinct in the posterior basal part; elytra strongly bi-costate on each side, and with the suture equally raised, each interval between the suture and the costæ bears two geminate striæ, the basal and humeral parts and also the deflexed sides are coarsely punctate; pygidium closely variolose punctate and with six white macules; sides of abdomen variolose punctate, briefly pubescent, each segment with a white macule on the upper side; pectus and femora clothed with a dense flavescent pubescence. In one of my

examples the prothorax has a not very distinct, interrupted, outer marginal greyish-white band.

Length 14 mm.; width 7½–8 mm.

Hab. Southern Rhodesia (Enkeldoorn, Umtali, Salisbury, Marandella's, Mtokos, Matopos, Gazaland).

Is found, like *C. infuscata*, on various flowers.

Gen. TEPHRÆA, Burm.,
Handb. d. Entomol., iii., 1842, p. 419.

Anaplasta, Burm., loc. cit., v., 1847, p. 561.
Aplasta, Schaum., Ann. Soc. Ent. Fr., 1844, p. 411.

Mentum elongated, sub-parallel, slightly sinuate in the anterior part, the outer angles of which are moderately rounded; inner lobe of maxillæ simple, upper lobe with a minute tooth; clypeus a little attenuate towards the anterior part, carinate laterally and with the apical margin slightly reflexed; antennal club as long as the pedicel in the male; prothorax and elytra depressed, the former moderately or strongly arcuate above the scutellum, the latter with two dorsal costæ and with series of elongated, strongly cicatricose punctures which, in the dorsal part, end towards the apex in geminate striate rows; sternal process projecting much beyond the coxæ, arcuately ampliate, and with a distinct transverse suture separating the mesosternal from the metasternal parts; anterior tibiæ tri-dentate outwardly, the upper tooth reduced to a moderately distinct sinuation in the ♂; intermediate and posterior tibiæ very plainly dentate on the upper side; tarsi moderately long, the two basal ones of the posterior legs triangular, the first one plainly acuminate outwardly in the ♂, sub-spinose in the ♀, upper and under sides glabrous, the latter part roughly cicatricose punctate on the pectus and the lateral part of abdomen.

The genus is represented in East Central Africa and Senegambia. One of the South African species (*T. dichroa*) ranges from Natal to the Lake Nyanza, and the livery of the other species (*T. collaris*) is very variable, and has led to the description as new species of colour varieties.

Key to the Species.

Antennal club rufescent; prothorax moderately arcuate at the base above the scutellum; scutellum punctate at the base; elytra with two white spots on each side .. .. *dichroa.*

Antennal club piceous; prothorax strongly arcuate above the scutellum; scutellum punctate laterally; elytra without white spots .. .. *morosa.*

TEPHRÆA DICHROA, Schaum.,

Ann. Soc. Entom. Fr., 1844, p. 411; ibid., 1849, p. 268.

♀ *lutulenta*, Schaum., loc. cit., 1844, p. 412.

Type. Male: Black, with the thorax red, and the elytra dark reddish brown; the red prothorax bears two discoidal fuscous spots and a supra-marginal one on each side, and the base is almost always narrowly infuscate; on each elytron are two white dots situated slightly past the middle. Female ashy-grey on the upper side, and having also the two white dots on each elytron, but the prothorax is unspotted. Head very closely punctate, antennal club rufescent; prothorax covered with round, non-cicatricose punctures separated from each other by an interval equal to twice the width of their own diameter, but in the centre there is a narrow longitudinal impunctate line, or very narrow band, those punctures are often hidden by an opaque coating in the male, but not so in the female; scutellum with a few punctures at the base; elytra with series of cicatricose ovate punctures in the intervals of the two costules as well as on the deflexed part, these seriate punctures are more regular in the male than in the female; pygidium shagreened, and with a lateral light rufescent patch in the male, or a white spot in the female; under side almost glabrous, pectus sub-reticulate, abdominal segments with a white macule on each, metasternum and epimera always maculated with white or grey in the female, occasionally so on the metasternum in the male.

Var. Male: Similar to the type except that the round black spots on the thorax are elongated into bands which reach neither the apex nor the base. Female like the type.

Length 12–14 mm.; width 7½–8 mm.

Hab. Natal (Durban, Maritzburg, Frere, Newcastle); Orange River Colony; the whole of the Transvaal and of Southern Rhodesia.

TEPHRÆA MOROSA, Schaum.,

Trans. Entomol. Soc. Lond., 1848, vol. v., p. 71.

anceps, Dohrn., Stett. Ent. Zeit., 1868, p. 240.
beinlingi, Nonfr. Ent. Nachr., 18, 1892, p. 124.
collaris, Bohem., Insect. Caffr., ii., p. 22.
napæa, Boh., Ofv. Vet. Akad. Förh., 1860, p. 118.
rufoornata, Jans., Cist. Entom., ii., p. 259.

Black, sub-opaque on the upper side, and very depressed; antennæ piceous, the club somewhat brownish-red at tip; head very closely punctate; prothorax covered with deep, ovate cicatricose punctures

closely set, especially on the sides, but in the centre there is a longitudinal impunctate narrow band; scutellum with an irregular series of deep punctures on each side; elytra with seriate ovate, nearly coalescing cicatricose, very deep punctures; pygidium reddish; under side nearly glabrous, immaculate.

Var. *collaris*. Black, sub-opaque on the upper side; prothorax rusty-red, narrowly marginate with fuscous; occasionally there are faint traces of two discoidal fuscous spots.

Var. *napæa*. Black, with the thorax and elytra ferruginous-red, the base of the thorax is narrowly edged with fuscous, and on the median discoidal part are two comma-shaped black macules or two small dots; the elytra have a narrow lateral and posterior fuscous margin, the suture is black and the pygidium is either ferruginous or black.

Var. *rufoornata*. Hardly distinguishable from the var. *napæa*.

The type form is rarer than the variety *collaris;* both forms occur in the same locality.

Length 11–15 mm.; width 6½–9 mm.

Hab. Transvaal (Lydenburg, Rustenburg, Zoutpansberg, Pietersburg, Waterberg); Southern Rhodesia (Middle Limpopo, Enkeldoorn, Sebakwe, Bulawayo, Salisbury); Damaraland.

Gen. PSEUDOPROTÆTIA, Kraatz,
Deutsch. Entomol. Zeitschr., 1882, p. 76.

Mentum elongated, sub-parallel, hardly sinuate at apex; upper lobe of maxillæ with two sharp curved teeth, inner lobe simple (*stictica*) or hooked (*amakosa*); clypeus moderately sub-parallel laterally, and either diagonally narrowed towards the apex the margin of which is conspicuously reflexed and incised in the ♂ (*stictica*), or parallel and with the anterior margin weakly bi-dentate in the centre (*amakosa*); in the ♀, however, the clypeus is parallel, transverse at apex, with the margin only slightly raised; in the male the antennal club is almost as long as the pedicel; prothorax sub-trapezoidal, very plainly arcuate above the scutellum; the latter is longer than broad, broad at base, but not sharply acuminate at apex; elytra broader than the thorax, not acuminate behind, and each has a distinct rounded discoidal costa and a short inner one connected transversely with the discoidal and also with the suture; the striæ in the dorsal part are quite distinct but at the apex there are traces of a very short costule uniting with the discoidal at the apical callus, the suture is plainly raised and acute at apex; sternal process plane, constricted between the coxæ, projecting beyond

them and arcuate transverse; anterior tibiæ tri-dentate, legs strong, short, tarsi also short, joints of hind ones plainly angular inwardly, first and second joints also angular outwardly in both sexes.

The genus is represented by one species in Senegambia, and by another in Central East Africa.

Key to the Species.

Prothorax with three longitudinal median, smooth, raised lines in the anterior part; upper side very closely punctate, all the punctures setigerous .. .. *leprosa.*

Prothorax with one longitudinal smooth median line, upper side moderately closely punctate; elytra glabrous .. .. *amakosa.*

PSEUDOPROTÆTIA ? LEPROSA, Brum.,
Handb. d. Entomol., v. 1847, p. 560.

aspersa, Péring., Trans. Ent. Soc. Lond., 1896, p. 163.

Bronze, shiny, covered on the upper side with short, erect, subfulvescent hairs, pectus somewhat densely pubescent; whole upper side splashed with sub-contiguous, sub-opalescent whitish macules, pygidium, sides of abdomen, pectus and femora covered with a white scale-like coating; frontal part plainly impressed laterally, more deeply punctate in the male than in the female, and densely hairy in the frontal part, in the male especially; prothorax with a plain, median smooth line running from apex to base and having on each side a less distinct band coalescing with the median one at about the middle, on each side are two or three faint depressions, and two plainly distinct, especially the inner, along the base, the surface is deeply and irregularly punctured, each puncture is setigerous; scutellum deeply pitted but with a median smooth longitudinal space; elytra with the dorsal costa tectiform, the striæ in the depressed juxta-sutural part are partly linear, partly punctate, on the deflexed sides the punctures are deep, sub-cicatricose, and all setigerous; pygidium cicatricose punctate, the punctures setigerous; abdomen and pectus, except the median part, coated with a thick sub-opaline coating; sides of pectus and legs moderately densely hairy.

Length 11–12 mm.; width 7–7½ mm.

Hab. Transvaal (Lydenburg); Southern Rhodesia (Sebakwe, Manica, Salisbury).

I am not quite sure of the identity of *T. leprosa*, Burm.

PSEUDOPROTÆTIA AMAKOSA, Bohem.,
Plate XLVII., fig. 32.
Insect. Caffr., ii., 1857, p. 30.

? *stictica*, Kraatz, Deutsch. Entom. Zeitsch., 1882, p. 70.

Bronze, shiny; prothorax with two discoidal, plain rows of slightly flavescent or flavescent-whitish macules, and also a supra-marginal and a marginal one; scutellum with a lateral patch; elytra very numerously maculated with the same colour; greatest part of pygidium almost completely covered with large patches; the under side, except the median part of the abdomen and the pectus, are covered with a flavescent coating; anterior margin of clypeus almost straight, the median part slightly sub-bidentate in the male, in which sex the frontal part is sub-bifoveate, densely villose, and moderately closely punctate; the prothorax is moderately closely punctate, the punctures being elongated and somewhat close to each other on the sides, but the median part and also the arcuate part of the base are smooth, each puncture is very briefly setigerous; scutellum smooth, but narrowly punctate along the base; epimera deeply punctate; elytra slightly attenuate behind, the basal part is sparsely punctate for some distance from the base, the striæ in the depressed juxta-sutural part are partly linear, partly catenulate, on the deflexed sides the punctures are ovate, but towards the margin they turn to transverse folds, and all the punctures are glabrous; pygidium closely cicatricose punctate; sides of pectus and legs very briefly pubescent.

Length 11–12 mm.; width $6\frac{3}{4}$ mm.

Hab. Transvaal (Pietersburg, Lydenburg, Rustenburg); Southern Rhodesia (Molopos, Salisbury, Bulawayo, Enkeldoorn, Sebakwe, Victoria Falls, Manica, Mtoko, Umfuli River).

GEN. TRYMODERA, Gerst.,
Arch. f. Naturgesch., 33, 1866, p. 34.

Charadria, Schoch., Mith. Schw. Ent. Ges., 1898, p. 175.

Mentum of exactly the same shape as in *Raceloma;* maxillary lobes moderately robust, upper lobe sharply mucronate but not hooked at tip, thickly penicillate; apical joint of maxillary palps truncate at tip; clypeus deeply incised laterally at the base, slightly ampliate there in the centre, the anterior angles are broadly rounded and the anterior margin deeply and somewhat broadly incised; head simple in both sexes; prothorax diagonally ampliate laterally in the

anterior part, nearly, but not quite, rectangular in the posterior, very conspicuously quadri-impressed along the base; scutellum tectiform in the posterior part, not very sharply acuminate at apex; elytra with the humeral part strongly developed, attenuated towards the side pieces and nearly straight thence to the apical part, strongly unicostate on each side; mesosternal process very short, sub-aculeate, truncate in front; anterior tibiæ bi-dentate in the ♂, tri-dentate in the ♀; inner side of all tibiæ briefly and moderately densely pubescent.

The only species included in this genus was originally described from what was then known as the Zanzibar mainland.

This species is found on *Protea* flowers (G. A. K. Marshall).

TRYMODERA ATERRIMA, Gerst.,
Loc. cit., p. 34.
Decken's Reis., Glied., 1873, p. 97; pl. vi., figs. 2, 2*a*.
duvivieri, Sch., Mith. Schw. Ent. Ges., 1898, p. 175.

Completely black and very shiny; clypeus covered with deep even punctures, closely set, on each side of the clypeus is a moderately deep impression, and two in the anterior part of the head, which is strigillate in front and smooth behind; prothorax with eight plain impressions, being on each side a juxta-median anterior one not always clearly defined, two lateral, and a supra-basal, the intervals are sparsely punctate, but the impressions are strongly strigillate; base of scutellum strongly strigillate transversely, the convex part smooth; elytra with a strong, smooth, tectiform costa beginning near the base and equi-distant from the humeral callus and the scutellum, the suture is conspicuously carinate, the space between the costa and the suture is quite smooth in the anterior part, but faintly bi-impressed and set with cicatricose punctures in the posterior, while the part lying between the dorsal costa and the outer margin bears three or four transverse impressions, is irregularly plicate, but bears in addition three short, sub-punctate striæ; pygidium strigillate; under side glabrous, very sparingly punctate, the punctures cicatricose.

The sculpture of this interesting species, which has no ally, closely approximates that of the genus *Leucocelis*, which in turn is nearly similar to that of many of the *Cremastochilides*.

Through the courtesy of Dr. Standfuss, of the Zurich Museum, I have een able to examine the type of *Charadria duvivieri*, Sch., and cau thns corroborate its identity with *Trymodera aterrima*, Gerst.

Length 13–14 mm.; width 7–8 mm.

Hab. ? Transvaal (Lydenburg); Southern Rhodesia (Manica, Enkeldoorn, Sebakwe, Salisbury); Mozambique (Beira).

Gen. POLYSTALACTICA, Kraatz,

Deutsch. Entom. Zeitsch., 1882, p. 69.

Pseudotephræa, Kraatz, loc. cit., p. 70.

Mentum long, sub-parallel, broadly and deeply emarginate in front; palpi of the normal shape, inner and upper lobe of maxillæ very distinctly dentate, but the teeth are not hooked; clypeus slightly attenuate towards the apex, emarginate there; prothorax sub-arcuate at the base, nearly straight above the scutellum which is sharply acuminate and hardly sunken, there are two deep impressions along the base; elytra moderately deeply sinuate laterally, each with a sharply tectiform entire discoidal costa, and an inner one reaching hardly the median part, the suture is highly carinate in the posterior part and sharply angular at apex; pygidium one-fourth broader than long, arcuate, rounded at apex; sternal process constricted between the coxæ and expanding into a very short transversely truncate process projecting very slightly only; anterior tibiæ bi-dentate in both sexes but with a plain sinuation above the second tooth in the female; tarsi somewhat short, joints not angular outwardly and very little inwardly in the ♀.

The three species known to me are speckled with white dots on the prothorax and the elytra. The characters assigned by Kraatz to his genus, *Pseudotephræa*, are of too slight importance to be taken into account; moreover they are not quite correct.

Key to the Species.

A². Discoidal costa of elytra very sharp, body shiny.

B². Body not much attenuated behind .. .. (Pseudotephræa).

Prothorax and elytra with very numerous white dots .. .. *furfurosa.*

B¹. Body plainly attenuated behind.. .. .. (Polystalactica).

Prothorax with eight somewhat large yellowish-white macules; elytra also with macules, body remotely villose on upper side .. .. *mashona.*

A¹. Discoidal costa of elytra bluntly tectiform, body opaque.

Prothorax and elytra speckled with numerous white dots .. .. *sansibarica.*

POLYSTALACTICA MASHONA, n. sp.

Black, shiny, upper and under side with moderately long, remote flavescent villose hairs; clypeus somewhat deeply incised in front, shagreened, frontal part deeply and closely sub-foveolate punctate; prothorax narrower laterally behind than in *P. furfurosa* and *P. sansibarica*, the epimera are more bulging on that account, it is covered with deep round punctures separated by an interval barely equal to their own diameter in the median and posterior part of the disk, but nearly contiguous in front, it is marked with eight moderately large flavescent white spots disposed transversely 2—4—2, and the base is straight above the scutellum which is vaguely punctate along the base; the elytra are bulging laterally at the humeral part and they are moderately attenuate behind, the discoidal costa is sharp, the punctures in the intervals moderately deep, and there are numerous flavescent white macules larger than the white dots of *P. furfurosa* and *P. sansibarica*, numbering sixteen on each side in my examples, there are series of remote hairs on the dorsal part, and the raised suture is not sharply acuminate; pygidium rufescent, sparsely dotted with white; under side not maculated with white, and moderately densely pubescent; anterior tibiæ with two somewhat robust outer teeth.

I have seen only a female example of this species, which differs somewhat from the true *Polystalactica* in the shape of the outer teeth of the anterior tibiæ and the not sharply acuminate suture.

Length 10 mm.; width 5½ mm.

Hab. Southern Rhodesia (Salisbury).

POLYSTALACTICA FURFUROSA, Burm.,
Plate XLVII., fig. 34.
Handb. d. Entomol., v., 1847, p. 558.

Black, shiny, upper side glabrous, antennæ chestnut-brown, clypeus more closely punctate than on the frontal part where the punctures are also deeper, and which bears four white dots, occasionally obliterated; prothorax covered with moderately remote deep, round punctures in the discoidal part, with the sides subfoveate, and having five rows of more or less rounded white dots, the three median rows are regular, but not so the two lateral ones, where the spots sometimes commingle; scutellum punctate along the base and with a lateral row of few punctures; elytra sinuate laterally but otherwise sub-parallel with the suture, sharply raised in the posterior part and sharply acuminate, the discoidal and the inner costæ are sharp, and there is a third, plainly visible in the

male but less so in the female, in the deflexed part, where the punctures are deep and slightly scrobiculate, the white dots are very numerous; pygidium numerously dotted with white; the sides of the abdomen and pectus are similarly dotted.

Length 10½–11 mm.; width 6–7 mm.

Hab. Southern Rhodesia (Enkeldoorn, Salisbury, Mazoe, Umtali).

POLYSTALACTICA SANSIBARICA, Kolb.,
Plate XLVII., fig. 33.
Sitz. Ges. naturf. Freund., Berlin, 1893, p. 75.

Dull dark brown in the male, olivaceous grey in the female, glabrous, opaque; antennæ piceous; clypeus aciculate, frontal part deeply but only moderately closely punctate; prothorax covered in the discoidal part with small, round punctures separated by an interval about equal to their own diameter, but on the sides the punctures are sub-contiguous, deep, and scabrose, on the disk are five rows of minute white dots resembling those of *P. furfurosa*, but still smaller, the lateral row is indistinct; scutellum punctate laterally; elytra plainly acuminate behind, sprinkled with very numerous white dots; the two dorsal costæ are rounded, subtectiform, the punctures in the intervals and on the deflexed side are arcuate ovate, not closed behind and cicatricose, clypeus splashed with white; under side covered laterally with a slightly fleshy-white coating; anterior tibiæ bi-dentate but with a distinct sinuation above the upper tooth.

Length 10½–11½ mm.; width 6–7 mm.

Hab. Southern Rhodesia (Umtali, Enkeldoorn, Sebakwe, Mount Chirinde); Mozambique (Beira).

LIPOTHYREA, n. gen.

Buccal organs of *Leucocelis;* head and prothorax of the same shape, the latter, however, is not quite straight above the scutellum; the elytra are very little attenuated behind, although deeply sinuate laterally, but the shoulders bulge as much beyond the epimera as in *Leucocelis;* the suture is not so sharply carinate, and is not sharply angular at apex; there are on each side two costæ, little raised in the anterior part, more so in the posterior where the intervals are geminate; the pygidium is arcuate instead of being acuminate truncate; the abdomen is less compressed laterally, and the sternal process which is not constricted between the middle coxæ is plane, acuminate rounded, and projects as far as the centre

of the anterior coxæ; joints of intermediate and hind tarsi less elongated and more ampliate at apex than in *Leucocelis*.

The species included in this genus differs from the *Leucocelides* in having a plain inner costa in the posterior part of the elytra, but the sculpture of the intervals, and also the humeral impression, show that it belongs to the group.

LIPOTHYREA BARKERI, n. sp.

Bright shiny green with the head dark green, a broad lateral orange band on the prothorax, and the epimera of the same colour; the pygidium, the ultimate abdominal segment, and the greater part of the penultimate are brick-red, and the tibiæ rufescent; antennæ piceous. Head closely punctulate; prothorax covered with deep, round punctures separated by an interval about equal to twice their diameter; scutellum impunctate; elytra shiny, the punctures of the first duplicate series are shallow, those of the second and third intervals are deeper, on the deflexed side they are moderately shallow, and sub-seriate; pygidium covered with round, cicatricose punctures; abdomen remotely but deeply punctate, sides of pectus irregularly plicate punctate, median part smooth, no traces of transverse suture on the sternal process.

Length 13 mm.; width 7 mm.

Hab. Natal (Karkloof).

GEN. GLAUCOCELIS, Kraatz,
Deutsch. Entom. Zeitschr., 1896, p. 375.

Mentum elongated, sub-parallel, slightly wider at the apex than at the base, moderately deeply incised in the centre and with the outer angles rounded, inner lobe of maxillæ bluntly acuminate but not dentate at apex, densely pubescent inwardly, upper lobe with a long pencil of rufous hairs; clypeus acuminate, deeply incised in the centre with the outer angles sharp, not reflexed; antennal club shorter than the pedicel in both sexes; prothorax ampliate rounded laterally in such a way as to be sub-orbicular, but the non-sinuate basal part is slightly acuminate in the centre above the scutellum which is very sharply acuminate, and deeply grooved laterally; elytra moderately sinuate laterally, but with the humeral angles strongly developed, and impressed on the upper side, bi-costate on each side, but with the inner costa obliterated from the median part, and the two intervals geminate striate from those to the apex, but punctate in the basal part; pygidium convex in the apical part more

strongly so in the male than in the female, and with a weak longitudinal keel in both sexes; sternal process sub-truncate at apex, not projecting beyond the coxæ, grooved to the tip; anterior tibiæ strongly tri-dentate in both sexes; intermediate and posterior tibiæ very strongly dentate on the upper side; tarsi moderately long, slender.

The convexity of the apical part of the pygidium is not unlike that obtaining in myrmecobious or termitobious species of *Cœnochilides*. The genus is easily recognised by the rounded lateral shape of the prothorax the central basal part of which, instead of being quite straight, impinges slightly over the scutellum in the manner of *Discopeltis*, in which genus the only species then known was formerly included; but *Glaucocelis* differs in the shape of the elytral costæ and sculpture, the latter connecting it plainly with the *Leucocelides*.

GLAUCOCELIS BELLULA, Bohem.,
Insect. Caffr., ii., 1857, p. 17.

thoracica, Schoch., Entom. Nachr., 1896, p. 181.

Black, shiny, prothorax blood-red with a supra-lateral black round spot at about the median part, and two basal, median broad macules coalescing along the basal margin; elytra sprinkled with a few, irregularly disposed white macules; pygidium blood-red with a few white macules along the basal edge. Head and clypeus closely punctulate; prothorax covered with moderately deep punctures separated from each other by an interval about equal to their own diameter, outer margin with a fringe of somewhat remote, long, setose hairs; scutellum impunctate, somewhat sunk; elytra with the humeral part very strongly developed, and impressed on the upper side, the first dorsal costa disappears at about the median part, the second is plainly visible, the intervals of the two are broadly but somewhat shallowy punctate from the base to the median part, the punctures on the second interval being deeper, broader, and ovate, from the median part or thereabout these punctures are replaced by geminate striæ, but in the deflexed part, deep, seriate, sub-cicatricose punctures are very plainly discernible, and there are on each side five rows of remote short, bristly, whitish grey hairs; propygidium closely, somewhat deeply aciculate and carinate longitudinally in the centre; pygidium with deep, uneven cicatricose punctures; under side deeply punctate, all the punctures setigerous.

Length 10–11 mm.; width 5–6 mm.

Hab. Transvaal (Waterberg, Rustenburg); Southern Rhodesia (Victoria Falls).

GEN. LONCHOTHYREA, Kolbe,
Stett. Entomol. Zeit., 1895, p. 289.

Body remarkably depressed; head somewhat broad; clypeus broad, parallel, straight in front, clypeal margin very little reflexed; prothorax trapezoidal, moderately narrowed in front, with the base arcuate, although not deeply in front of the scutellum, the lateral margin sinuate before the rounded posterior angles; elytra depressed, sub-costate, hardly attenuate, sutural apical angle strongly produced; anterior tibiæ bi-dentate externally; tarsi of the hind legs shorter in each sex than the tibiæ, those of the female less slender; mesosternal process broad, plane, broadly arcuate at apex, projecting beyond the coxæ and plainly marginate; scutellum very sharp at apex.

LONCHOTHYREA MOZAMBICA, Bertol.,
Nov. Comm. Bonon., Disc. iii., 1849, p. 47, pl. 3, fig. 3.

Black, shiny; head with a white patch on each side of the frontal part, prothorax with a marginal white line and on each side of the discoidal part a row of four white dots, between this row and the outer margin are two serrate white dots; elytra with four longitudinal series of white dots of the same size as those on the prothorax; pygidium with a transverse row of four white dots, and having also two small dots at the apex; the four central abdominal segments have each a longitudinal series of white dots, the prothoracic epimera each bear a white spot, and there is a similar dot on the upper angle of the pectus, and also on the under part of the intermediate femora near the knee. Body depressed; clypeus parallel, truncate at apex but with the angles slightly obtuse, head and clypeus deeply punctured, the punctures on the clypeus finer and set more closely than on the frontal part; prothorax deeply and somewhat closely punctate, the punctures in the median part of the disk are less deep than on the sides, and disappear completely above the arcuate part of the base; on the elytra the inner abbreviated costa on each side is almost plane and smooth, but the two entire outer ones are distinct and sub-tectiform, the punctures in the intervals are very deep, those on the deflexed sides are not seriate; pygidium closely variolose punctate, the punctures coalescing; under side glabrous, sides of abdominal segments closely and deeply ovate punctate; inner part of femora and tibiæ briefly pubescent; palpi and club of antennæ rufescent.

Length 12–14 mm.; width 6–7 mm.

Hab. Mozambique (Beira).

Gen. LEPTOTHYREA, Kraatz,

Deutsch. Entom. Zeitschr., 1882, p. 72.

Buccal organs of *Mausoleopsis*, with which it is so closely allied that the only distinctive characters are the sub-parallel elytra, and the sternal process which is more ampliated and strongly arcuate at apex; the inner claw of the anterior tarsi and the hind legs are simple in both sexes. In the female the anterior tibiæ are somewhat sharply sinuate above the second outer tooth. The livery is that of *Mausoleopsis*, the facies that of *Pseudotephræa*, but slightly more attenuate behind.

Leptothyrea perroudi, Schaum.,

Plate XLVII., fig. 27.

Ann. Soc. Ent. Franc., 1844, p. 410.

Black, shiny; clypeus truncate at apex, not acuminate, frontal part deeply punctate and with two or three white macules on each side; prothorax moderately narrowed laterally in the anterior part, and with the base straight, moderately deeply but closely punctate, and having on each side a broad white band and two rows of three punctures each on the discoidal part; some of those punctures may be obliterated, but the two basal ones are always showing; scutellum impunctate; elytra with the entire dorsal costa very sharp, and the inner one short, the basal part is roughly punctate and the punctures on the deflexed sides are for the most part covered by three broad and long white marginal macules partly coalescent at times, on the humeral part there is a distinct white dot, and a small white patch at the apex, in the dorsal part are several small white dots the number of which is sometimes variable, and also a small median subtransverse macule which occasionally unites with the median lateral patch; pygidium with two irregular, large white macules often coalescing; sides of abdomen and pectus maculated with white, knees and epimera with a white mark.

Length 10½–12 mm.; width 6–7 mm.

Hab. The whole of Natal, of the Transvaal, and of Southern Rhodesia. In the Cape Colony it has been recorded only from the border of Natal. I am not aware of it having being found in the Orange River Colony or to the west of it, nor in Damaraland or Ovampoland.

GEN. LEUCOCELIS, Burm.,

Handb. d. Entomol., iii., 1842, p. 421.

Cyrtothyrea Kolb. Stett. Ent., Zeit., 1895, p. 286.
Erythroderma Kolb., loc. cit., p. 285.

Mentum very long, four times as long as broad, nearly parallel and not broader at apex than at base, deeply incised in the centre of the anterior margin, and with the outer angles moderately rounded, last joint of labial palps thickened, the palps cavity broad but short owing to the great length of the mentum; inner maxillary lobe very densely pubescent but ending in a short, sharp tooth, upper lobe with a very long pencil of hairs; last joint of labial palps thick, sub-truncate at apex; clypeus long, slightly acuminate, incised in the centre at apex, and with the angles not rounded; eyes large; antennal club shorter than the pedicel in both sexes; prothorax as long as broad, diagonally ampliated laterally from the apex to about one-third of the length, nearly straight thence to the rounded basal angle, the base straight above the scutellum, except in *L. natalica;* the latter longer than broad, very sharply acuminate and somewhat sunk in; prothoracic epimera greatly developed; elytra strongly bulging out beyond the epimera, deeply sinuate below the shoulder, elongated and very narrowed behind, somewhat depressed, and having on each side a discoidal costa entire and an inner one disappearing at about the middle and replaced thence to the apex by two geminate lines, the suture is much raised and generally acuminate at apex; the pygidium is long, triangular, truncate at apex; sternal process plane, either projecting much beyond the coxæ, or moderately so, or not at all, usually with the transverse suture visible, and either sub-orbicular, arcuate, or almost transverse at apex; abdomen compressed laterally; anterior tibiæ bi-dentate, intermediate and posterior with a weak spine on the upper side, all fringed with a moderately long pubescence inwardly; tarsi long, joints sub-cylindrical.

Kolbe has split the genus in several sub-genera. I am, however, of opinion that in so far as the South African are concerned, specific characters have been mistaken by him for generic ones.

The species included in this genus are all found on flowers of various kinds. They vary greatly in colour and markings.

Key to the Species.

A². Hind marginal prothorax quite straight above the scutellum.

B³. Sternal process strongly projecting, sub-orbicular at apex .. .. (ERYTHRODERMA).

Body rufo-testaceous, legs black; sternal process with a transverse suture at apex .. .. *rubra.*

Black, thorax with a reddish flavescent outer marginal band, elytra greenish blue, sternal process without transverse suture .. .. *amoena.*

B². Sternal process, moderately projecting, and sub-arcuate.

C². Prothorax red, unspotted, with white; elytra bright green with very few white dots.

Sternal process plainly projecting, prothorax with a basal, transverse black band .. .. *amethystina.*

Sternal process only moderately projecting.

Prothorax red; elytra with a few white spots .. *hæmorhoidalis.*

Prothorax black, elytra immaculate.. .. .. .. var. *nigricollis.*

Prothorax with a longitudinal black median band; elytra spotted with white along the outer margin.. var. *vitticollis.*

C¹. Prothorax with white impressions.

*a*². Each elytron with one supra-marginal row of deep punctures.

Prothorax totally æneous, or with a lateral narrow reddish band.

Elytra not very much attenuate behind .. .. *adspersa.*

Elytra much attenuated behind .. .. *æneicollis.* / *cupricollis.*

*a*¹. Each elytron with two marginal rows of deep punctures.

Elytra green or bluish, dorsal costa moderately raised .. .. *lucens.*

Elytra blue-black, dorsal costa highly raised .. *umtalina.*

A¹. Hind margin of prothorax sinuate above the scutellum.

B¹. Sternal process almost transverse, not projecting.

C². Pygidium plane.

Elytra black, pygidium rufescent, without white macules, prothorax black with a short rufescent margin .. .. *natalica.*

Upper part pygidium black or rufescent, and with white macules.

Prothorax black, with a white outer margin; pygidium with three small, white macules .. .. .. *testaceoguttata.*

C¹. Pygidium convex, sub-binodose.. .. .. (Cyrtothyrea).

Totally black, pygidium with one white macule on each side .. .. *brevis.*

LEUCOCELIS (ERYTHRODERMA) RUBRA, Gory and Perch.,
Plate XLVII., fig. 18.
Monogr. d. Cét., p. 299, pl. 58, fig. 1.

margarita, Schoch., Mith. Schw. Ent. Ges., x., p. 52.

Testaceous bronze-red, with the legs and head dark, almost fuscous bronze. Shape and sculpture of *L. hæmorhoidalis*, but it is a little larger and in proportion more acuminate behind. It differs also from most of the South African species of the genus in having the mesosternal process more produced beyond the coxæ. Anterior part of clypeus aciculate, posterior part closely and deeply punctate; prothorax sparingly punctulate in the posterior part; scutellum punctulate; discoidal costa of elytra much raised in the posterior part, supra-marginal row of punctures very distinct, marginal row weakly punctate; pygidium with ovate, non-contiguous cicatricose punctures; sides of abdomen with long, cicatricose punctures, sides of prosternum almost strigose; under side almost glabrous, except the femora, tibiæ, and tarsi, which are fringed inwardly with dense, flavescent hairs; sternal process straight, projecting greatly beyond the coxæ, and strongly arcuately rounded.

Length $10\frac{1}{2}$–12 mm.; width $5\frac{1}{4}$–$5\frac{1}{2}$mm.

Hab. Cape Colony (East London, Port St. John), Natal (everywhere), Orange River Colony and Transvaal (throughout).*

LEUCOCELIS (ERYTHRODERMA) AMOENA, n. sp.

Black, prothorax with a narrow rufescent yellowish outer marginal band tapering much towards both the apex and base, elytra greenish blue; pygidium black. Larger than any other South African species of *Leucocelis;* the clypeus and head have the normal sculpture; the prothoracic punctures are very small, and far remote from each other; the scutellum is impunctate; the elytra are greatly attenuated behind, the discoidal costa is hardly raised, and the discoidal series of punctures are far from deep, those on the deflexed part are extremely shallow, and those of the supra-marginal and marginal rows are very shallow; pygidium cicatricose punctate; under side sculptured in the same manner as in *L. rubra;* sternal process long, slightly slanting downwards, more sub-orbicular at apex than in *L. rubra*, and without any traces of transverse suture.

Length 13 mm.; width 7 mm.

Hab. Southern Rhodesia (Gazaland).

* The Transvaal examples are slightly smaller than those from Natal, and more flavescent-red.

LEUCOCELIS AMETHYSTINA, McLeay,
Plate XLVII., fig. 20.
Illustr. Zool. S. Afric. Invert., 1849, p. 48.

Black, with the two apical abdominal segments red, the prothorax is red, but the median part of the base has a broad, transverse black band; the elytra are much attenuated behind and are greenish blue, bluish, or amethystine violet without any traces of white macules, or having three rows of minute white dots on each side; the pygidium is immaculate; and the sides of the pectus and of the abdomen are more strigillate than cicatricose punctate, as in *L. hæmorhoidalis* which it so closely resembles that were it not for the differently shaped genital clasps of the male, and the transverse black basal band of the elytra, which is constant, it might be mistaken for the former.

Length 10–11 mm.; width $5\frac{1}{4}$–6 mm.

Hab. Cape Colony (Kimberley); Transvaal; Southern Rhodesia, Damaraland, Ovampoland, Mozambique.

In examples from Umtali in Southern Rhodesia, each elytron has three series of small white dots.

LEUCOCELIS HÆMORHOIDALIS, Fabric.,
Plate XLVII., fig. 19.
Syst. Entom., App., p. 819.
Gory and Perch., Mon., p. 298, pl. 57, fig. 8.
Herbst. Käf., vol. 3, p. 246, pl. 31, fig. 1.
Olivier, Entom., vol. 1, p. 56, 66, pl. 11, fig. 24*b*.

dysenterica, McLeay, Ill. Zool. Afric., iii., p. 48.
dysenterica, Bohem., Ins. Caffr., ii., p. 24.
rubra, de Geer, Mém. Ins., vii., p. 643, pl. 48, fig. 6.
vitticollis, Bohem., Ins. Caffr., ii., p. 25.

Bronze-black, with the two apical abdominal segments rufescent, the prothorax broadly red laterally (var. *vitticollis*), almost completely red, or entirely black; (var. *nigricollis*) pygidium red. Head very closely punctate but with the punctures of the clypeus finer and more shallow than those on the frontal part; prothorax moderately closely punctate in the anterior part, but much less so in the posterior, and without any white macules or impressions; scutellum impunctate, but occasionally with a few fine punctures; elytra much attenuated behind, bright green or greenish blue with a violaceous tinge, seldom with any traces of white markings except on the posterior margin, but in the variety *vitticollis*, Boh., there are three

rows of spaced white dots on the dorsal part, and the outer margin is almost contiguously maculated with white; these markings, however, are very variable in number, and are even almost completely obliterated; the three duplicate rows of punctures are distinct, but there is no distinct one along the outer margin; under side sparsely pubescent, pectus and abdomen cicatricose punctate; pygidium concolorous and covered with non-contiguous, ovate, cicatricose, deep punctures.

It is well-nigh impossible to say which is the type in that most variable species. It occurs everywhere in South Africa, but it would seem, however, to become rarer in the Northern Transvaal, where it is replaced by *L. lucens*, and in some parts by *L. amethystina*.

Length 11–12½ mm.; width 5¼–6¼ mm.

LEUCOCELIS ADSPERSA, Fabric.,
Plate XLVII., fig. 21.
Syst. Eleuth., ii., p. 154.

adspersa, Gor. and Perch., Mon., p. 297, pl. 57, fig. 7.
albosparsa, Schoch., Gen. and Sp. m. Cetonid, Samml., p. 110.
attalica, Schönh., Syn. Insect., i., 3, p. 138.
guttata, Thunb., Mém. Ac. Petr., vi., 1818, p. 423.
marginalis, Swartz. Schönh., Syn. Ins. Append., p. 55.
Var. *verreauxi*, Gor. and Perch., Monogr., p. 297, pl. 57, fig. 5.

Dark bronze, brighter on the prothorax, the outer margin of which has a somewhat narrow reddish band reaching from the apex to the base, but this band is occasionally quite obliterated; the elytra are dark green or green with a faint reddish tinge; the pygidium is very dark red, and occasionally dark bronze; palpi and antennal club rufescent. Head very closely punctulate; prothorax moderately closely punctate, the punctures separated by an interval about equal to their own diameter in the anterior part, but more than double that width in the posterior, in the discoidal part are two rows consisting each of three white impressions, and there are two similar impressions in the outer marginal part; scutellum impunctate; elytra moderately attenuate towards the posterior part, and hardly impressed near the humeral part, the double rows of punctures in the first two intervals are more or less distinct, and so is the double one outside the discoidal costa which is well raised, the deflexed part is punctate sub-seriate, but the punctures are very shallow, and on each elytron are three rows of white macules; under side greyish pubescent especially on the pectus and femora; pygidium closely shagreened scrobiculate, and having two or three small white

macules on each side, these macules are occasionally wanting; sternal process quite transverse.

The variety *L. verreauxi* differs from the type in the absence of the reddish marginal band of the prothorax, and the dark bronze pygidium. So far as I know, it seems restricted to the south-western parts of the Cape Colony, and is rare. The typical form is abundant in the eastern parts of the Colony, and reaches Natal.

Length 9–10 mm.; width 5–5$\frac{4}{5}$ mm.

Hab. Cape Colony (Ceres, Tulbagh, Worcester, Graham's Town), Natal (Maritzburg, Durban).

LEUCOCELIS ÆNEICOLLIS, Schaum,
Ann. Soc. Ent. Franc., 1844, p. 109.

Var. *minor*, Kolbe, Stett. Ent. Zeit., 1895, p. 290.

Size and shape of *L. amethystina*, but the under side and legs, head, prothorax, and scutellum are bright bronze; the prothorax is remotely punctulate and has on each side a supra-marginal, somewhat diagonal white band, oftener than not partly obliterated, and two basal discoidal white spots or impressions, the sub-median one of which is very often obliterated; the elytra are green or greenish rufescent, numerously or sparingly maculated or not; and have a very distinct supra-marginal row of punctures better defined than the marginal one; pygidium bronze-rufescent.

In the variety *minor*, which is much smaller than the type, the hind part of the prothorax is almost impunctate and the two marginal striæ of the elytra are impunctate.

Length 9–11 mm.; width 5–6 mm.

All the examples I have seen are from the neighbourhood of Durban, Natal, the var. *minor*, of which one example was kindly lent me by Mr. O. E. Janson, is labelled Delagoa Bay.

LEUCOCELIS CUPRICOLLIS, Kraatz,
Entom. Monatsbl., ii., p. 153.

Under side and legs, head, prothorax, and scutellum bright bronze, almost coppery; pygidium coppery red; elytra bright green, spotted with white. Similar to *L. æneicollis*, from which it differs by the much more closely punctured prothorax; the punctures, especially on the sides, are elongated, and the outer margin of the elytra is as plainly punctate as the supra-marginal row.

Length 12 mm.; width 6 mm.

This species is recorded from the Lake Nyassa region, and the

example which I have seen, through the kindness of Mr. O. E. Janson, is labelled as such. But I believe that it has been recorded also from the northern parts of Southern Rhodesia.

LEUCOCELIS LUCENS, Jans.,
Cistul. Entomol., ii., 1877, p. 258.

? discolor, Kolb., Stett. Entom. Zeit., vol. 56, 1895, p. 292.

A most variable species. Bronze-black underneath, with the head and scutellum black, the prothorax red or rufescent with the central part almost always æneo-fuscous, but occasionally also rufescent with a transverse black basal band as in *L. amethystina ;* the elytra are bright green, greenish blue, or violaceous, and are seldom without numerous white elongated macules ; pygidium dark rufescent, and also seldom without three white macules on each side. The prothorax is very sparingly punctate in the posterior part, but in most of the examples there are two rows, each of three white impressions, on each side of the disk, and three or four white dots on the supra-marginal side, often coalescing there so as to form a band. Even if these white markings are obliterated the impressions are still discernible ; the deeply punctured elytra have two lateral rows of distinct punctures ; the upper part of the abdominal segments and the epimera bear a white macule, and the under side and legs are sparingly hairy.

The genitalia of the male do not differ in shape from those of *L. æneicollis*. I have not seen the type of *L. discolor*, Kolb., but I am of opinion that it is the same species as *L. lucens*.

I have seen two examples from Northern Damaraland, the whole body of which is black, even the pygidium ; the elytra are blue with a few white spots. This variety might be named *amœnula*.

Length 9–10¼ mm. ; width 5 mm.

Hab. Southern Rhodesia (Salisbury, Gwelo, Sebakwe, Manica, Victoria Falls, Enkeldoorn, Northern Damaraland).

LEUCOCELIS UMTALINA, n. sp.

Æneous black, the prothorax also æneous black but very broadly marginated with red, elytra dark bottle-green ; pygidium and the two apical abdominal segments red. Head sculptured as in the preceding species, viz., finely aciculate on the clypeus and deeply and closely punctate on the frontal part ; prothorax deeply punctate, the punctures moderately closely set in the posterior part, and having on each side two rows of deep, elongated impressions filled with

white; scutellum impunctate; elytra with the two dorsal costæ highly tectiform and with a third outer costa plainly distinct, in each interval there is a row of deep, elongated white macules and a supra-marginal one making four on each side, and on the margin are two superposed non-striated rows of elongated punctures; the red pygidium is sculptured in the usual manner and bears on each side three small white macules; the sculpture and vestiture of the under side is as usual.

This species is easily recognised from its congeners by the very deep, white impressions on both the prothorax and elytra, and the three high costæ on each elytron.

Length 7–8 mm.; width $3\frac{4}{5}$–4 mm.

Hab. Southern Rhodesia (Sebakwe).

Leucocelis natalica, n. sp.
Plate XLVII., fig. 22.

Black, with a reddish broad outer marginal band of red reaching from the apex to the median part only, pygidium reddish, edged with black and with a median longitudinal black narrow line. Very closely allied to the preceding species and with the white markings on the prothorax and elytra similarly disposed, but the prothorax is much more closely punctate, and is not æneous, the lateral red band does not reach beyond the median part, the black elytra have no greenish tinge, and are much more attenuate behind; the discoidal costa is much more raised and there is a deep impression alongside the humeral callus. The sternal process projects slightly more than in *L. adspersa*. The shape of the male genitalia differs in the two species.

Length 9–$9\frac{1}{2}$ mm.; width 5–$5\frac{1}{2}$ mm.

Hab. Cape Colony (Port St. John, East London), Natal (Durban).

Leucocelis testaceoguttata, Blanch.,
Plate XLVII., fig. 23.
Cat. Coll. Ent. Mus. Par., 1850, p. 10.

Black, with the pygidium rufescent, under side bronze-black. This species somewhat resembles *L. natalica*, but the elytra are more parallel. The prothorax is more deeply punctate, the three discoidal white impressions are broader and deeper, and the outer margin has an entire moderately broad white band consisting plainly of three elongated coalescing patches; the elytra, the sculpture of which closely resembles that of *L. natalica*, has on each side four regular rows of white patches instead of three; the pygidium is totally

rufescent and has two white macules on each side; sternal process quite transverse.

Length 9 mm.; width $4\frac{3}{4}$ mm.

Hab. Transvaal (Johannesburg).

(*Species which I have not been able to identify.*)

LEUCOCELIS (CYRTOTHYREA) BREVIS, Kolb.,
Stett. Ent. Zeit., vol. 56, 1895, p. 286.

"Short, moderately convex, totally black, shiny, spotted with white on the upper side, posterior margin of prothorax sinuate above the scutellum; elytra sub-bicostate with the inner costa abbreviated, distinctly and almost roughly punctate striate, and with five geminate striæ on each side, some of the punctures semicircularly dug out; pygidium with a white macule on each side and annulate punctate; abdomen and pectus shiny, sparsely flavo-pilose, glabrous in the centre."

Length $8\frac{1}{2}$ mm.

Hab. Transvaal (Swazieland).

I have not yet met with this species, which seems to differ from *L. testaceoguttata* in having the pygidium black.

LEUCOCELIS DISCOLOR, Kolb.,
Loc. cit., 1895, p. 292.

"Black, sub-æneous, pygidium and the two last abdominal segments red, legs black, sub-æneous; prothorax red, and having a median broad (black) band reaching from apex to base; elytra green, cyaneous or amethystine and maculated with white; prothorax with an irregular, oblique, sub-marginal band, and bearing four discoidal macules, rounded behind, straight or most slightly subsinuate above the scutellum; striæ of elytra geminate punctate, fourth stria reaching the posterior callus, or abbreviated, intervals plane in the anterior half; prothorax moderately punctate nearly all over, but more densely so in the anterior part, and without any median discoidal stria; pygidium covered with regular, ringed punctures, separated from each other.

Length 8·5–9·5 mm.

Kolbe compares this species with *L. adspersa*, of which it is a close ally.

LEUCOCELIS NICKERLI, Kraatz,
Deutsch. Entomol. Zeitschr., 1895, p. 362.

"Black, shiny, prothorax, pygidium anal segment red; thorax

with 2–3 white dots, and a lateral oblique white patch; elytra with white points, the latter are green, very finely punctate-striate, the lateral striæ are strong and deeply impressed behind.

Var. *cyanipennis*. Elytra cyaneous, with white dots.

Var. *dorsalis*. Elytra without white dots; thorax black in the centre.

Var. *nigricollis*. Elytra without white dots; thorax completely black.

Length 8 mm.

Hab. Southern Zambesi.

Gen. HOMALOTHYREA, Kolbe,
Stett. Entom. Zeit., 1895, p. 288.

"Similar at first sight to the species of the genus *Leucocelis*, but the clypeus is less attenuated, the prothorax is arcuate behind, moderately rounded, very little tri-sinuate before the scutellum, almost obtuse with almost no posterior angles; posterior sutural angle simple; pectus and abdomen very slightly pilose; mesosternal process broadly obtuse; anterior tibiæ bi-dentate; the teeth rather remote; first joint of the posterior tarsi compressed, posterior upper angle short, acute in the male, elongated, dentiform in the female."

According to Kolbe, the shape of the first joint of the hind tarsi should lead one to include the genus among the *prototypic* Cetoninæ.

Homalothyrea franki, Jans.,
Notes Leyd. Mus., x., 1888, p. 109.

"Head black; closely punctured, the punctures confluent and forming striæ on each side between the eyes, slightly convex in the middle, apex of the clypeus reflexed and slightly emarginate in the centre; antennæ red-brown. Thorax red, with a blue or green tinge, the anterior margin, a small spot on each side, a large longitudinal spot in the centre and an ill-defined transverse mark in front of the scutellum black, or green with a bluish tinge, strongly rounded at the base on each side, straight in front of the scutellum, slightly narrowed from the base to the middle, thence rounded and narrowed to apex, the disk rather finely and sparsely punctured, the punctures coarser towards the sides. Scutellum black or green, impunctate, the apex very acute. Elytra red tinged with blue, the entire margin and the apical part blue or blue-black, two lateral spots behind the middle, two (sometimes confluent) close to the apex and a variable number of smaller spots near the suture and outer margin and on the

disk, white, ten rows of coarse punctures on each elytron, the first and second rows assuming striæ behind the middle, the second and fourth interstices broader and convex, the suture elevated posteriorly and obtuse at the apex. Pygidium red, with coarse ring-shaped punctures. Beneath black, sides of the prothorax, a spot on the upper side of the epimera, outer margin of the posterior coxæ and the two apical abdominal segments red; coarsely punctate and strigose, with sparse grey hairs; mesosternal process very broad, truncate in front, a transverse impressed line with a fringe of grey hairs at the apex. Legs black, &c.

Length 9–12 mm.

Hab. Ovampoland."

In spite of the conformation of the basal joint of the hind tarsi, it is very evident that this species is a true *Leucocelite* as borne out by the sculpture of the elytra and the marginate sternal process. It resembles examples of *Leucocelis lucens*, Jans., from Northern Damaraland.

GEN. MAUSOLEOPSIS, Lansb.,
C. R. Soc. Entom., Belg., 1882, p. 29.
Revoil's Faun. and Flor., Comalis. Coléopt., 1882, p. 39.
Microthyrea, Kraatz, Deutsch. Entom. Zeitschr., 1882, p. 76.

Buccal organs of *Leucocelis;* head similarly shaped; prothorax more ampliated towards the base; the sternal process is broader, arcuate, and does not project much. The species of this genus differ from *Leucocelis* merely in the livery, which is black splashed with white macules or spots. In the males of some species the hind femora are broadened and arcuate (*amabilis*, *luctifera*) or not (*rubriceps*), but in all the inner claw of the fore tarsi is conspicuously longer than the outer, and somewhat difform.

Key to the Species.

A². Spiracle of the last abdominal segment conspicuously spinose.

Prothorax with one basal white spot and two lateral white patches; elytra with three broad lateral white patches, and often with a fine sutural median white spot.. .. .. *amabilis.*

Prothorax with one basal white spot, a small lateral white patch,and also a small white dot; elytra with three white lateral patches and two or three intermixed white dots, and a dorsal series of threewhite spots .. .. *luctifera,*

A¹. Spiracle of last abdominal segment normal,

Prothorax greatly attenuated towards the apex, and having on each side two large white lateral patches and a small basal white dot; elytra with three marginal white patches and one dot, dorsal par with fine white dots .. .. *albomaculata.*

Prothorax not much attenuated towards the apex, and bearing six or eight white dots; elytra with eleven or fourteen white dots; clypeus and pygidium red .. .. *rubriceps.*

MAUSOLEOPSIS AMABILIS, Schaum.,
Plate XLVII., fig. 25.
Ann. Soc. Ent. d. France, 1884, p. 408.
Coquerel, loc. cit., 1848, p. 280, pl. 8, figs. 3, 4.

Black, shiny, antennæ piceous black; frontal part slightly impressed on each side near the eyes, more deeply and less closely punctured than on the clypeus; prothorax broad, only moderately attenuate laterally in the anterior part, the base is arcuate, but the central part is almost straight above the scutellum, the disk is very closely punctate in the anterior and median part, but less so in the posterior especially in the male, and there are on each side two elongated white patches, the anterior of which is half the size of the posterior, the two seldom commingle, and there are two marginal white dots very seldom obliterated in the base; the humeral part of the elytra is remarkably bulging, and the posterior part is greatly attenuate on that account, the disk and the sides have series of cicatricose more or less shallow punctures, and they are each adorned with a supra-median, sub-quadrate, somewhat large marginal white patch, a sub-arcuate one past the middle and a transverse one extending along the apical margin, in some examples from the extreme northern part of the South African area there are occasionally one or two white dots near the suture, and I know of examples from Ovampoland where there are three such spots, and also a marginal one below the second lateral patch; pygidium transversely plicate, and having on each side a white patch; abdominal segments with a tiny white macule, upper part of coxæ with an ovate one, sides of metasternum with a broad white patch; abdominal segments roughly punctate longitudinally on the sides, pectus briefly pubescent, the pubescence silvery, metasternum cicatricose laterally, and punctate in the median part; hind femora of male thickened, arcuate, tibiæ broad, laminate inwardly, inner claw spear-like but contorted.

Length 9–12½ mm.; width 5–7 mm.

The whole of South Africa with the exception of the Cape Colony.

MAUSOLEOPSIS LUCTIFERA, Klug,
Plate XLVII., fig. 26.
Monatsb. Berl. Acad., 1855, p. 660.
Peter's Reis., 1862, p. 265, pl. 15, fig. 10.

More robust than the large forms of *M. amabilis*, but differing mostly in the smaller size and greater number of the white macules and dots. In the prothorax, the sculpture of which is identical to that of *M. amabilis*, both the lateral macules are reduced to a round spot, and the anterior one is often wanting, as in the type; on the elytra the two lateral patches and also the apical one are greatly reduced, and in addition to these three patches there are also either one round spot above the upper marginal patch, or not, and in the four examples that I have seen, another spot between the post-median patch and the apex, in the discoidal part are three seriate dots; the pygidium and the under side have the same markings as in *M. amabilis*, and the shape of the hind legs and of the inner claw of the anterior tarsi of the male are similar. In Klug's figure there is only one discoidal white dot on the elytron, but the markings are very variable.

In *M. amabilis* these small spots are frequent in many examples, but the two lateral white macules are never reduced in size. *M. luctifera* seems to me to be a varietal form of *E. eustalacta*, which is found in Madagascar and the Comoro Islands.

Length 13–14 mm.; width 7½–8 mm.

Hab. Mozambique (locality unknown). Klug also does not mention the part of Mozambique from which his examples came.

MAUSEOLEOPSIS ALBOMACULATA, Moser,
Berlin Entom. Zeitschr., 1904, p. 65.

This species might be mistaken at first sight for a small example of *M. amabilis* with white dots on the discoidal part of the elytra, but it differs in the shape of the prothorax which is more regularly elongated laterally from the basal angle to the apex, and is less broad across the base than in *M. amabilis;* the sculpture of the head and prothorax is the same, and the white markings of the latter are equally large, but in the elytra there is a large median marginal white patch, one spot above and another below it, and a moderately large apical patch, in the discoidal part there is on each side a diagonal band, consisting of two coalescing spots in the basal part of the dorsal interval, two in the median part of the disk, the upper one of which is set close to the suture, and a juxta-sutural one midway

between the median and the apical part; the pygidium bears two large white macules; the four basal abdominal segments have a band of white, and the pectus is also broadly maculated laterally with white; the spiracle of the last segment is not raised.

Length 9 mm.; width 5 mm.

Hab. Mozambique (Beira).

MAUSOLEOPSIS RUBRICEPS, Raffr.,
Plate XLVII., fig. 24.
Rev. et. Mag. Zool., 1877, p. 334.

Black, shiny, clypeus, antennæ, pygidium, and last abdominal segment red; head plainly impressed, although not deeply, on each side of the frontal part, the middle of which is thus sub-carinate, and more deeply punctate there than in the clypeal part; prothorax hardly punctulate in the discoidal part in the male, regularly punctulate all over in the female, in the discoidal part are two rows of three white dots, and there is a white lateral median spot; scutellum impunctate; elytra elongate, attenuate behind, the punctures moderately deep, and having on each side small white dots varying from twelve to fourteen; the dark-red pygidium is without white macules, finely aciculate, and somewhat depressed longitudinally in the female; the under side is without any traces of white patches or dots; in the male the hind thighs are not much arcuate, but the lower edge of the tibiæ is laminate; the pectus and legs are very briefly setulose.

Length $8\frac{3}{4}$–$10\frac{1}{2}$ mm.; width $4\frac{1}{2}$–6 mm.

Hab. Southern Rhodesia (Salisbury, Gazaland); Mozambique (Beira, Rikatla).

The species was originally described from the Zanzibar mainland.

(*I have not been able to identify the following species.*)

? MAUSOLEOPSIS ALBOSIGNATA, Bohem.,
Öfv. Vet. Ak. Förhandl., 1860, p. 118.

"Oblongo ovate, black, shiny, little convex above, sparsely pubescent beneath; prothorax moderately and little closely punctate, having on each side a lateral, oblong, snow-white band; elytra little deeply but closely punctate striate, posterior part of the disk impressed towards the suture and provided with a flexuose ridge towards the apex, each one adorned with three lateral, snow-white, sub-impressed macules, the first one sinuated before the middle, sub-triangular and smaller than the second, the second one is in the

median part, is moderately large and sub-ovate, the third and apical one is small, transverse, narrower inwardly; pygidium with two snow-white macules; pectus having on each side a sub-rotund, whitish macule.

Length 10–11 mm.; width 6–6½ mm.

Hab. Neighbourhood of Lake N'Gami.

Size and appearance almost like that of *L. hæmorhoidalis*. Near *M. amabilis* in colouration, smaller, narrower, and easily distinguished by the snowy-white macules of elytra, which are of a different shape and differently distributed."

Tribe CREMASTOCHILIDES.

In this Tribe the head is more retractable than in the other groups of the *Cetoninæ;* the clypeus is always deflexed, with the frontal part very often convex, and the sides vertical, the apical margin, when the head is drawn in, fits against a long ante-coxal prosternal spine, or, when this spine is rudimentary, against the anterior coxæ, and as the apical part of the pronotum is quite vertical laterally, the clypeus fitting against the margin obturates completely the lower side; this peculiarity is not, however, so marked in *Macroma* or *Phymatopteryx*, which are flower-haunting insects, as in the others which are myrmecobious or termitobious. The shape of the mentum is very variable and often extremely singular. The outer face shows always a tendency to get thicker either in the centre or towards the apical part of the ligula, which is often excavated or cupuliform, while the centre is also often gibbose or very convex and even tuberculate (*Genuchus*). In some genera the whole mentum is plane, or in the shape of a shield, pointed at the base (*Scaptobius*, *Placodidus*, *Anatonochilus*), in which case the labial palpi are styliform, fits closely against the sides, and do not project beyond the apex, while they are sub-cylindrical and project beyond the apex in the other genera; the eyes are broad and large in some species, depressed on the upper side in others, and divided by a hairy canthus; the antennæ are short, and the club large, the basal joint is strongly compressed and broadly triangular, often auriculiform, and when the head is contracted this joint fills the broad incision of the clypeus in front of the eye; both the lobes of the maxillæ are sharply dentate, and the teeth are often falciform; the thorax is variable in shape, but seldom sub-trapezoidal (*Macroma, Hoplostomus*); the scutellum is sharply triangular; the elytra elongated, strongly sinuated laterally, never covering completely the propygidium the

spiracle of which is tuberculate or spiniform, seldom plane (*Macroma*, *Hoplostomus*); the mesothoracic epimera are very conspicuous; the pygidium is large, often carinate or tuberculate, vertical or slanting, convex in the centre or plane; intermediate coxæ seldom broadly separated by a sternal process, oftener than not the mesosternal process is reduced to a narrow fold acuminate in *Nyassinius* or even disappearing in *Scaptobius*, or completely obliterated (*Placodidus*); the tarsi are normally 5-jointed, but in two species of *Scaptobius* they are 4-jointed, and in one genus (*Trichoplus*) the number of joints is only three. The antennæ are 9-jointed, but in *Phymatopteryx* they have ten joints.

The habits of the insects included in this Tribe are widely different from most of the *Cetoninæ*. *Macroma* appears to be floricolous, and so is probably *Phymatopteryx*. *Cymophorus* is also said to be found on flowers, but the glandular hairs or scales with which some species are provided, imply myrmecobious habits. *Spilophorus* in the imago, and also the larval stage is found in birds' nests, feeding on the excrements. *Hoplostomus* devours the honey in bee-hives. The South African species of *Cœnochilus* and *Anatochilus* are termitobious. Some species of the closely allied genus *Plagiochilus* are known to be myrmecobious, and so are those of the genera *Trichoplus*, *Scaptobius*, *Placodidus*, in which the mentum obturates completely the under side of the head. It is among those myrmecobious insects that the more degraded forms occur. *Genuchus*, on the other hand, is found in the calyx of flowers of a *Protea* exuding so large a quantity of nectar as to be known locally under the name of "sugar bush." But however degraded some of these forms may be, they are less further removed from the true *Cetoninæ* than the *Trichini*, *Myodermini*, or *Valgini*.

The number of genera represented in the South African Region is 21, and that of species 55. A few of the latter (7) are found in other parts of Africa, and *Hoplostomus*, probably on account of its habits, occurs all over the African Region.

Key to the Genera.

A[4]. Intermediate coxæ broadly divided by the sternal process.

B[2]. Mentum not obturating completely the buccal cavity, labial palpi plainly visible.

C. Prosternum with an ante-coxal vertical spine.

Spiracles of last abdominal segment plane .. .. *Macroma.*

a[2]. Antennæ 10-jointed.. .. .. *Phymatopteryx.*

a^1. Antennæ 9-jointed.

Prothorax hexagonal .. .. *Macromima.*

Prothorax not hexagonal .. .. *Cymophorus.*

A^3. Mesosternum with a blunt process between the intermediate coxæ.

a. Frontal part depressed, carinate longitudinally, clypeus reflexed.

Anterior margin of clypeus highly raised in the centre; anterior and posterior tibiæ strongly bi-spinose on upper side; last abdominal spiracle acute .. .. *Spilophorus.*

Anterior margin slightly raised in the centre; anterior and posterior tibiæ uni-spinose on upper side; last abdominal spiracle plane .. .. *Hoplostomus.*

A^2. Intermediate coxæ separated by a narrow mesosternal process.

B^2. Mentum not obturating completely the buccal cavity, leaving the labial palps exposed to view.

D^3. Tarsal joints moderately slender, elongated; 5-jointed

a^2. Last spiracle of abdomen not prominent.

b^2. Clypeus very convex at the base.

c^2. Posterior part of prothorax rounded laterally.

Mentum not gibbose in the outer face .. *Cœnochilus.*

Mentum gibbose in the outer face .. .. *Anatochilus.*

a^1. Last spiracle of abdomen spinose or tuberculate.

c^1. Posterior part of the prothorax straight or only slightly sinuate .. .. *Plagiochilus.*

D^2. Tarsal joints compressed, transverse, or nodose.

Prothorax quadrate; elytra striate, covered with oblong scales .. .. *Proxenus.*

Prothorax hexagonal, humeral part of elytra very sloping .. .. *Astoxenus.*

b^1. Clypeus not convex.

Clypeus not deflexed, head simple; prothorax hexagonal; each elytron with a conspicuous costa; anterior tarsal joints not nodose .. .. *Pilinurgus.*

Clypeus deflexed, head highly carinate; prothorax sub-hexagonal; elytra bi-costate, anterior tarsal joints strongly nodose.. .. *Lissogenius.*

C². Prosternum with a vertical ante-coxal and a post-spine.

Clypeus vertical; basal part of mentum produced coxal into a long, more or less vertical process .. *Genuchus.*

D¹. Tarsi short, 3-jointed; legs inermous.

Legs quite glabrous, tarsal joints fused; intermediate and posterior tibiæ without spine on the upper side.. .. .. *Trichoplus.*

C¹. Prosternum with a rudimentary vertical ante-coxal process.

*a*². Intermediate and posterior tibiæ not dentate on the upper side.

*b*². Anterior tibiæ uni-dentate.

Anterior part of clypeus reflexed in a conspicuous lamina; pygidium vertical, highly carinate in the centre; sternal process swollen at tip.. .. *Nyassinius.*

Anterior part of clypeus bifid; pygidium with a high round keel produced at apex in a thick process rounded at the top .. .. *Myrmecochilus.*

*a*¹. Intermediate and posterior tibiæ dentate on the upper side.

*b*¹. Anterior tibiæ pluri-dentate.

Last joint of labial palpi large; prothorax suborbicular; anterior tibiæ bi-dentate .. .. .. *Trogodes.*

A¹. Intermediate coxæ separated by a rudimentary mesosternal process, or without process.

B¹. Mentum obturating completely the buccal part, labial palps not reaching the anterior margin.

a. Intermediate and posterior tibiæ dentate on the upper side.

Basal part of clypeus convex; prothorax not incised laterally near the base; anterior tibiæ broadly dilated at apex and strongly bi-dentate .. .. *Anatonochilus.*

Mesosternum vertical, process between coxæ obliterated; prothorax sharply incised at the base; anterior tibiæ tri-dentate; body thick .. .. .. *Scaptobius.*

Meta- and meso-sternum fused, the latter plane in front of coxæ; prothorax incised at the base; anterior tibiæ tri-dentate; body very strongly compressed .. .. *Placodidus.*

GEN. MACROMA, Gor. and Perch.,
Monogr. d. Cét., 1833, p. 35.

Mentum parallel, ligular part ampliated with the outer face greatly swollen in the centre and sloping thence to the anterior margin which is deeply emarginate, crescent-shaped (*cognata*), slightly sinuate (*emarginicollis*), or entire (*lutescens*), maxillæ long, robust, upper lobe armed with a strong, sharply arcuate tooth, inner lobe with a similar but shorter tooth, last joint of labial and maxillary palps long, cylindrical, the former curved; head simple, eyes very large, the canthus short; basal joint of antennæ well developed, triangular, compressed laterally; prothorax sub-trapezoidal; scutellum sharply triangular; elytra broader than the prothorax, strongly emarginate laterally below the shoulder, and straight, or nearly so, thence to the apex, plane, non-costulate, and sloping in the posterior part; spiracle of the propygidium sharp or not; pygidium sloping more or less, sub-acuminate, carinate in the centre, and bi-tuberculate, or simple; intermediate coxæ separated by a broad horizontal process projecting beyond them and bluntly arcuate at apex; prosternum simple; anterior tibiæ bi-dentate outwardly, intermediate and posterior ones with a spine on the upper edge; tarsal joints somewhat compressed, sub-cylindrical on the upper side, claws long.

The genus is represented in Africa and Asia.

Key to the Species.

A². Clypeus attenuate, anterior margin reflexed in the centre.

B². Tooth of inner maxillary lobe trifid.

C². Prothorax deeply impressed longitudinally in the posterior part; scutellum deeply sunk; elytra concolorous .. .. *cognata.*

A¹. Clypeus simple.

B¹. Tooth of inner maxillary lobe simple.

C¹. Prothorax not impressed longitudinally in the posterior part.

Clypeus slightly sinuate in front.

Prothorax black, not sulcate; elytra with a broad flavescent supra-marginal, arcuate patch; pygidium carinate and bi-tuberculate.. .. .. *emarginicollis.*

Clypeus oval, entire in front; prothorax sulcate longitudinally, luteous-fulvous with two chestnut bands; elytra of the same colour as the prothorax and with one humeral spot and two sub-apical transverse chestnut macules; pygidium simple .. *lutescens.*

MACROMA COGNATA, Sch.,
Germ. Zeitschr., iii., 1841, p. 278.
Westw., Thesaur Entomol., p. 9, pl. vi., fig. 3.

Reddish brown, shiny, glabrous, clypeus covered by a yellow patch triangularly produced to near the vertex, head alone sparingly punctate, anterior margin raised triangularly in the centre; prothorax sub-trapezoidal, moderately rounded laterally behind, base slightly bi-sinuate, not emarginate above the scutellum, deeply impressed longitudinally in the posterior part in a line with the equally depressed scutellum, the surface is very sparingly punctulate and the outer margin has a broad yellow band including a small round brown patch, the sulcate part is also yellow, and so is the greatest part of the scutellum; elytra somewhat sunk in the anterior part along the suture which from the middle becomes moderately raised, they are immaculate and have regular series of remote round punctures which, along the suture, are cicatricose; spiracle of propygidium round, not projecting; pygidium sloping backwards, somewhat elongated, carinate in the centre from base to apex and with a small tubercle on each side of it, the median part is obsoletely punctulate and the outer sides strigillate; upper side of abdominal segments with a broad yellow macule each, side-pieces, the greatest part of the metasternum, and anterior part of fore coxæ yellow, sides of abdomen and pectus sparingly punctate; legs strigillate.

Length 17–18 mm.; width 9 mm.

Hab. Natal (Durban, Pine Town, Maritzburg, Malvern, Isipongo, Unkomaas, Eshowe); Cape Colony (Transkei, St. John's River, East London); Southern Rhodesia (between Zambesi and Limpopo); Mozambique (Rikatla).

In this species the inner lobe of the maxillæ is laminate and the lamina tri-dentate lengthways.

MACROMA EMARGINICOLLIS, Bohem.,
Insect. Caffr., ii., p. 45.
Westw., Thesaur. Entomol., p. 10, pl. vi., fig. 11.

Black, shiny, glabrous; clypeus very slightly arcuate in front, margin simple, impressed longitudinally on each side near the frontal part of the head, deeply punctate like the head and having a flavescent median band; prothorax hexagonal, broader than long, deeply arcuately emarginate at the base above the scutellum, the hind angles are moderately rounded, the surface is deeply but somewhat sparsely punctate, and there is a broad lateral marginal

flavescent band partly enclosing a black spot; scutellum impunctate, flavous; elytra very sparsely punctate, the punctures sub-cicatricose and more numerous on the deflexed part than on the non-costate discoidal part, aciculate and strigillate along the posterior margin, and having slightly past the median part a flavescent marginal patch somewhat broad at the upper part, incised inwardly, and resembling a broad comma; spiracle of propygidium acuminate and conspicuous; pygidium slanting, carinate longitudinally in the median part, and having on each side and close to it a conspicuous, rounded tubercle more or less flavescent; the upper sides of the abdomen are immaculate, the side-pieces have a flavescent patch, and there is a similar one on the sides of the metasternum.

Length 14–15 mm.; width 7–7½ mm.

Hab. Transvaal (Pretoria, Waterberg); Southern Rhodesia (Sebakwe); Ovampoland (Okovango River).

MACROMA LUTESCENS, Westw.,
Thesaur. Entomol., p. 10, pl. vii., fig. 2.

"Oblong, sub-depressed, luteous-fulvous, shiny; head and prothorax smooth; elytra moderately smooth, marked between the eyes with a **V**-shaped spot, sides behind the eyes chestnut; prothorax sulcate in the middle, luteous-fulvous and having two broad, longitudinal bands narrowed in front and chestnut-brown, and two black dots on the anterior part of the sides; elytra depressed towards the suture and having one humeral dot and two sub-apical, irregular macules chestnut-brown, hind margin of the prothorax and the suture narrowly black; legs short, chestnut-red, femora fulvous on the upper side; abdomen and pectus variegated with fulvous and yellow. The clypeus is oval and entire in front; the prothorax is sub-triangular, with the posterior angles rounded; the abdomen above is chestnut-coloured, the terminal joint having a transverse yellow facia with a conical apical spot of chestnut.

Length 24 mm.

Hab. Port Natal."

I have not seen this gaily-coloured species.

GEN. MACROMINA, Westw.,
Thesaur. Entomol. Oxon., 1874, p. 15.

"Body oblong-ovate, convex, suture of elytra sub-depressed. Upper lobe of maxillæ strong, elongated, falciform, strongly unidentate at apex, inner lobe with a bifid tooth, the upper part larger

than the lower and acute, the lower small; mentum oblong, the outer median part setose, the anterior margin little sinuate. Prothorax hexagonal with the sides angularly produced in the middle. Anterior tibiæ bi-dentate. Metasternum with a straight obtuse mucro between the intermediate coxæ. Elytra strongly emarginate behind the shoulders, each one with a raised longitudinal, little curved keel reaching from the sides of the scutellum to the apical tubercle. Abdomen not depressed underneath towards the base; apical spiracles conical; pygidium carinate in the middle and tuberculate on each side.

This genus is proposed for an African species which agrees with *Macroma* in its general details, but differs from the species of that genus in its small size, hexagonal prothorax, and colouring."

MACROMINA ANGULICOLLIS, Westw.,
Loc. cit., p. 15, pl. vii., fig. 3.

Oblong, sub-depressed on the upper side, shiny, punctate; clypeus somewhat rounded, anterior margin raised; sides of prothorax prominently angulate in the centre, posterior margin slightly broader than the anterior one, nearly straight, median part of the disk with a very fine keel; shoulders of elytra raised, suture depressed towards the base but raised towards the apex. Black, prothorax with a median narrow dorsal bloody-red line, and the sides also narrowly sanguineous, this lateral band enclosing a black ante-median dot; scutellum and two narrow lines in each elytron bloody-red, these lines are united before the apex by a transverse striole; elytra punctate and having a very fine line close to the suture and running parallel with it, sides with transverse strioles.

The only example of this interesting little species which I have hitherto seen I obtained from a Collection received from Lake N'Gami; it is a male, having the basal segments of the abdomen longitudinally impressed down the middle. The two terminal spiracles of the abdomen are prominent, and the pygidium is raised so as to form three obtuse tubercles.

Length 12 mm.; width $5\frac{1}{2}$ mm.

GEN. PHYMATOPTERYX, Westw.,
Thesaur. Entomol., 1874, p. 7.

Mentum slightly gibbose transversely in the centre of the outer face, sloping thence to the apex, which is slightly sinuate in the centre with the outer angles slightly rounded, angular laterally

below the palps cavity which are very broad; maxillæ short, robust, upper lobe with a bifid tooth and densely penicillate outwardly, apex of inner lobe slightly mucronate; last joint of labial palps swollen outwardly, that of the maxillary short; head small, clypeus truncate, angles moderately rounded, antennæ 10-jointed; eyes very large; prothorax very diagonally attenuated laterally in the anterior part, much less so in the posterior; base straight laterally, strongly arcuately emarginate above the scutellum; the latter very long, narrow, not sharply acuminate at apex; elytra plane, broader than the prothorax at the base, slightly attenuate behind, with the suture sharply acuminate (*glaberrimus*); propygidial spiracle small but sharply conical; pygidium sloping backwards; mesosternum divided from the metasternum by a very distinct suture, mesosternal process very broad, transverse, almost straight at apex; prosternum with a long, vertical spine-like ante-coxal process truncate at apex; anterior tibiæ sharply tri-dentate outwardly, intermediate and posterior ones with a spine on the upper side; tarsi somewhat slender and moderately long.

Westwood originally founded this genus for a very singular species from Guinea (to which he added another later on), and which, like *Uloptera planata*, Burm., an allied genus, from Cayenne, has 10-jointed antennæ, instead of these being 9-jointed as in all the other known *Cetoninæ*.

PHYMATOPTERYX GLABERRIMUS, Westw.,
Trans. Ent. Soc., 1879, p. 202, pl. 3, fig. 4.

Very shiny, brown, glabrous; prothorax and elytra variegated with dull flavescent; head flavescent, sides including those of the clypeus longitudinally impressed, and closely punctate; prothorax dull flavescent, but with the median part piceous brown, in the central part of the disk which is impunctate is a short, punctate impression, three deep strigillate ones on each side of it, and two supra-lateral ones, the base is sloping towards the scutellum, but with the angles distinct, and deeply arcuate above the scutellum, the dorsal space between the discoidal impression is smooth, but the sides are strigillate; scutellum impunctate, but slightly impressed at the base, and sub-strigillate there; elytra with a dorsal, wavy, sub-tectiform costule and a less distinct one near the deflexed part; the space between the first dorsal costule and the suture is filled in the anterior part by an elongated impression running beyond the point of the scutellum, and with a single juxta-sutural striole, in the posterior part there is a similar impression reaching the apex,

but there the suture is raised, and on each side of it is a distinctly geminate stria, the space between the first dorsal costa and the second has four impressions arranged in a row and is striolate-punctate, running from side to side, and past the median part is a transverse band consisting of four interrupted flavescent macules in relief on each side, the sides are transversely plicate; the apical callus is greatly developed and likewise flavescent longitudinally; pygidium transversely strigillate and having at apex an arcuate impression with highly raised, round, sub-flavescent walls; last abdominal segment wholly, the others laterally only strigillate; pectus also strigillate laterally; legs strigillate-punctate, sparsely hairy.

Length 9–9½ mm.; width 4¼ mm.

Hab. Transvaal (Leydsdorp); Southern Transvaal (Mazoe, Sebakwe, Salisbury, Mt. Chirinda).

Gen. CYMOPHORUS, Kirb.,
Zoolog. Journ., iii., 1827, p. 271.

Ptychophorus, Schaum., Germar's Zeitschr., iii., p. 271.
Clydonophorus, Kraatz, Deutsch. Entomol. Zeitschr., 1899, p. 61.

Mentum elongated, emarginate laterally at about the median part, sub-parallel thence, truncate at apex, gibbose on the outer face of the ligular part, last joint of labial palps long, cylindrical or nearly so, inner lobe of maxillæ with two superposed teeth, upper lobe with a long, falcate tooth; head simple, clypeus somewhat deflexed, anterior margin reflexed; eyes very large; antennal club as long as the whole pedicel and ferruginous; prothorax attenuate in front, slightly narrower at the base than across the median part, or equally broad (*hilaris*), bi-impressed along the base, somewhat convex and without impression in the discoidal part; scutellum sharply triangular; elytra very deeply sinuate laterally, not much narrowed thence to the apex, on each side of the base there is a sharply triangular, long depression the apex of which is continued as a dorsal moderately raised costa ending in an apical callus on the outer part of which is a long, very deep impression above the lateral, deflexed part; spiracles of the propygidium sharply conical; pygidium sloping backwards, conically produced in the centre and having a longitudinal median keel; mesosternum with a somewhat broad, short process which is truncated at apex; prosternum with a vertical, ante-coxal spine-like process; anterior tibiæ uni- or bi-dentate in both sexes; tarsi long; intermediate and posterior tibiæ with a spine on the upper edge.

This genus seems restricted to Africa. The South African species haunt flowers. In Southern Rhodesia "they seem to confine themselves principally to *Protea*, and some of the large Compositæ" (G. A. K. Marshall). But the silky scales covering part of the body of several species would seem to imply a myrmecobious stage during a part of their existence.

Key to the Species.

A². Anterior tibiæ uni-dentate in both sexes.

B². Upper side black.

Body clothed with contiguous yellow silky scales.. .. *undatus.*

Body with scattered greyish scales, and with three small white macules and one median spot on each elytron .. .. *intrusus.*

Sides of prothorax densely scaly; elytra almost glabrous, each with three large white patches and one median spot .. .. *margaritiferus.*

B¹. Elytra orange-coloured, glabrous; elytra orange-coloured with a broad irregular black sutural mark.. *hilaris.*

A¹. Anterior tibiæ bi-dentate in both sexes.

B². Clypeus plainly dentate in the anterior margin.

Prothorax with a lateral white margin; elytra also marginated with white and with several white macules on each side .. .. *leucostictus.*

B¹. Clypeus simple.

Prothorax and elytra with a fulvous margin; the latter with two orange-coloured patches on each side .. .. *rubronotatus.*

CYMOPHORUS UNDATUS, Kirby,
Zool. Journ., iii., p. 153, pl. v., fig. 6;
Westw., Thesaur. Entomol., p. 19, pl. viii., fig. 3 (♀).

Piceous black, completely covered on the upper and lower sides with appressed somewhat golden scales; head closely punctate; antennal club reddish; prothorax not quite straight laterally in the posterior part owing to a slight sinuation, but the base is nearly straight, the surface is covered with sub-contiguous round punctures, all setigerous, and has no traces of strigillation; the scutellum and elytra are similarly punctured and clothed, the suture is sharply raised in the posterior part and highly carinate at apex, the space between it and the dorsal costa encloses two geminate strioles;

gibbose part of the pygidium very highly carinate longitudinally; median part of abdomen alone glabrous; mesosternal process comparatively broad, truncate at apex; in the male the apex of the anterior tibiæ is very sharp, whereas in the female it is obtuse and obliquely truncate.

Length 8–10 mm.; width 4–5 mm.

Hab. Natal (Durban, Pine Town, Maritzburg); Transvaal (Potchefstroom, Pretoria, Waterval, Lydenburg, Rustenburg); Southern Rhodesia (Salisbury); Zanzibar mainland.

CYMOPHORUS (CLYDONOPHORUS) INTRUSUS, Blanch.,
Coll. Mus. Par., 1850, p. 43;
Westw., Thesaur. Entomol., p. 18, pl. viii., fig. 7.

Black, moderately shiny, antennal club rufescent; clypeus with the median part of the anterior margin somewhat reflexed, but not denticulate; head and prothorax deeply and very closely punctate, each puncture bearing a greyish or flavescent appressed scale which is easily rubbed off; the prothorax is of the same shape as in *C. undatus*, but the base is slightly arcuate above the scutellum, which is sparingly scaly; the elytra are much less closely punctate, the punctures are wider and bear each only a minute greyish scale, and they have on each side a minute white juxta-sutural dot at about the median part, and three white patches, one small, dorsal, transverse, set slightly past the middle, another and wider juxta-sutural one at the apex, and a third on the outer margin of the posterior part; pygidium with one or two large macules on each side; sides of abdomen and pectus moderately, inner part of legs densely squamulose hairy; in the female the apical part of the anterior tibiæ is blunter than in the male.

Length 7½–11 mm.; width 4–6 mm.

Hab. Natal (Maritzburg); Transvaal (Zoutpansberg); Southern Rhodesia (Sebakwe, Gwelo, Enkeldoorn, Salisbury); Mozambique (Rikatla); British and German East Africa; Abyssinia.

CYMOPHORUS MARGARITIFERUS, Bohem.,
Insect. Caffr., ii., p. 46;
Westw., Thesaur. Entomol., p. 17, pl. viii., fig. 5.

Black, very shiny; head closely punctate and covered with silvery-white scales; prothorax moderately closely punctate, and having a broad lateral band of thick white scales, in shape it is like that of the previous species; the scutellum is without scales; the

elytra are very shiny and almost glabrous except for a few scaly white hairs in the posterior and apical parts, they bear a few ovate, not scale-bearing, punctures at the base and on the deflexed dorsal part, and they have on each side a small juxta-sutural silvery-white dot at about the median part and three somewhat large pearly patches, the first, a transverse one, is about median and reaches from the outer margin to the sharp dorsal keel, the second is apical, and the third is situated in the posterior outer margin; pygidium hairy and with two white macules on each side; under side sparsely hairy; metasternum with a lateral, cretaceous patch.

This species is distinguished from *C. intrusus* by its almost glabrous and more glossy upper side, and by the broader and much more conspicuous white patches on the elytra.

Length $7\frac{1}{2}$–10 mm.; width $3\frac{1}{2}$–$5\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Victoria Falls, Salisbury, Sebakwe, Enkeldoorn, Mazoe).

CYMOPHORUS HILARIS, Bohem.,
Insect. Caffr., ii., p. 48;
Westw., Thesaur. Entomol., p. 16, pl. viii., fig. 10.

"This pretty species is distinguished not only by its orange-coloured elytra, with a broad irregular black sutural mark, but also by the hind part of the prothorax not being narrowed at the shoulders. The clypeus has the sides, and especially the front margin, elevated; the head and pronotum are finely punctured; the sides of the elytra strongly punctured; the humeral and discoidal impressions of the latter are striolate; the disk glossy and finely but distantly punctured. The body beneath is shining; the sides of the metasternum strigosely punctured; the abdomen blood-red and glossy. The anterior tibiæ in the female are very slightly notched below the apex rather than bi-dentate.

Length 6–9 mm.; width 3–$4\frac{3}{4}$ mm.

Hab. The neighbourhood of the Limpopo River."

I have not met with this species.

CYMOPHORUS RUBRONOTATUS, Péring.,
Trans. S. Afric. Philos. Soc., iii., 1885, p. 99.

Black, moderately shiny, not squamose; head and clypeus very closely punctate, and covered with moderately closely set, appressed, sub-flavescent hairs; prothorax quite straight from the ampliate anterior part to the basal angle, base arcuately emarginate above the scutellum, closely punctate, the punctures are ovately transverse,

and the walls often form a transverse strigillation; the sides have a moderately broad, light fulvous band running from the ampliate part to the base, and there is a spot of the same colour in the basal impressions; scutellum strigillate, punctate; elytra with a light fulvescent margin beginning below the lateral emargination, sending two short spurs on the deflexed side, and reaching the suture, on the dorsal part there is a short, transverse orange-coloured band situated slightly before the median part, and a sub-quadrate patch of the same colour above the apical callus, the suture, the base, the costate part and also the space separating the two supra-lateral impressions are distantly punctate, the impressions are longitudinally and the deflexed part transversely strigillate, the punctures in the posterior part are very briefly pubescent; pygidium broadly maculated with light fulvescent on each side and pubescent; abdomen black; legs and sides of pectus hairy, the hairs squamulose; anterior tibiæ sharply bi-dentate in the male, more bluntly so in the female.

Length 8–10 mm.; width 4–5 mm.

Hab. Southern Rhodesia (Victoria Falls, Salisbury, Sebakwe, Enkeldoorn).

CYMOPHORUS LEUCOSTICTUS, Schaum.,
Germ. Zeitschr., iii., p. 273.
Westw., Thesaur. Entomol., p. 17, pl. viii., fig. 4.
undatus, Burm., Handb. d. Ent., iii., p. 648.

Black, shiny; anterior margin of clypeus reflexed into a plain median tooth; head and clypeus closely punctate, almost glabrous; prothorax ampliate laterally near the median part, slightly attenuated thence towards the basal angle, covered with round punctures separated by a space equal to their own diameter, there is a moderately broad, white marginal band which does not quite reach the humeral angle, and a white spot on each supra-basal impression; scutellum strigillate and cicatricose punctate; elytra each with a median, juxta-sutural ovate white spot, and a similar but more irregular one at the apex, a broader humeral one in the humeral impression, and a more or less broad marginal band beginning below the lateral sinuation and sending two transverse streaks or spurs, one below the median part, the other above the posterior, and reaching only the middle of the disk; the space between the suture and the first geminate stria is finely, the alternate one more broadly punctate, and slightly remote like the others on the dorsal part; pygidium deeply punctate and with two white patches often coalescing on each side; sides of abdomen with a long white band; metasternum white

laterally and densely pubescent like the inner part of the femora and legs, the pubescence being whitish.

Length 9–10 mm.; width $4\frac{3}{4}$–$5\frac{3}{4}$ mm.

Hab. Cape Colony (Port Elizabeth, East London); Transvaal (Potchefstroom); Natal (Frere); Southern Rhodesia (Salisbury, Umfuli River); also Eastern Central Africa.

(*Species not identified.*)

CYMOPHORUS SEMILUCTUOSUS, Blanch.,
Cat. Coll. Ent. Mus., Paris, 1850, p. 3.

"Black, punctate; head maculated with white; prothorax convex, outer margin dentate, shoulders and also two basal spots white; elytra bi-strigose, excavated, and having a maculate abbreviated median band with the outer margin bi-dentate, and a humeral, as well as an apical spot white.

Length 10 mm.

Hab. Caffraria."

GEN. SPILOPHORUS, Lacord.,
Gener. d. Coleopt., iii., 1856, p. 545;
Westw., Thesaur. Entomol., 1874, p. 28.

Pseudospilophorus, Kraatz. Deutsch. Entomol. Zeitschr., 1899, p. 63.

Mentum strongly gibbose at about the median part of the outer side, sloping at a somewhat sharp angle to the anterior margin which is sinuate in the centre with the angles moderately rounded, the central part of the outer face is deeply grooved as far as the apex of the gibbose part, the palps cavity reaches from apex to base, the sub-cylindrical, curved last palpal joint is long; the maxillæ are somewhat robust and elongated, both the lobes have a long, falcate tooth, the lower one somewhat sinuate inwardly at the tip, last joint of maxillary palps fusiform, truncate at tip; head simple, clypeus slightly deflexed, anterior margin raised and sub-triangularly reflexed in the centre, eyes large, canthus long; antennal club small; prothorax sub-trapeziform, arcuately emarginate above the scutellum which is long and very sharp; elytra broader than the prothorax, deeply sinuate laterally, almost parallel thence, non-costulate; propygidium very broadly uncovered and with the spiracle sub-conical; pygidium broader than long, arcuate at apex, indistinctly sub-carinate in the centre; metasternum triangularly produced between the

intermediate coxæ, separated by a suture from the extremely small vertical metasternal process; prosternal vertical process also rudimentary; anterior tibiæ bi-dentate outwardly; intermediate and posterior with a carina "en chevron" and dentate at each end, Cetonid fashion; tarsi short, somewhat robust, glabrous.

The genus is represented in Guinea and Eastern India.

The facies is more that of a Cetonid than of a Cremastochilid. The South African species breeds in the nests of small birds like finches, robins, &c., and the larvæ, as well as the adult insects, have been found there together feeding on the fæces. Their habits are thus similar to those of *Diplognatha gagates*.

Kraatz includes in the genus two Indian species, and for the reception of the South African he founds the genus *Pseudospilophorus*. The difference, being merely the shape of the prothorax, which in *Spilophorus* proper is sub-hexagonal, instead of being transverse as in *Pseudospilophorus*, does not seem to me sufficient to warrant the change.

SPILOPHORUS LUGUBRIS, Fabric.,
Syst. Ent., i., App., p. 819;
Oliv., Entom., i., 6, p. 44, pl. 7, fig. 60.

plagosus, Boh., Ins. Caffr., ii., p. 49.

Black, glabrous, very shiny, basal part of head with a transverse white band; sides of prothorax with a marginal very broad white band which does not reach the basal part; elytra with a very large, sinuate sub-quadrate patch slightly past the median part, and extending from the outer margin to a short distance from the suture, at the top of the posterior declivity is a narrow, sinuate transverse band which is often rudimentary and also often obliterated; on each side of the pygidium is a white patch or macule; the under side is either quite immaculate, or there is a lateral band on the abdomen and a broad patch on the sides of the metasternum. Frontal part deeply bi-impressed, the outer part of the impressions sub-carinate, and the two impressions divided by a slightly raised keel, clypeus and frontal part foveolate-punctate, the punctures not contiguous in the frontal impression; prothorax one-third longer than broad, only moderately attenuated laterally in the anterior part, nearly straight for two-thirds of the length, impunctate in the central part of the disk, and with only a few punctures on the sides; scutellum with a few punctures at apex; elytra broader than the prothorax, very faintly costulate in the central part of the disk, with the suture keeled in the apical part, they are very sparsely punctate, the punctures being broad and shallow, the white patches are not punctate; propygidium

transversely strigillate ; pygidium with shallow, scattered punctures ; under side similarly sculptured.

The white markings of this species are very variable. According to Westwood, the typical specimen, still preserved in the Banskian Collection of the British Museum, has the hind part of the head with an irregular white mark ; the apex of the elytra is scarcely marked with white ; the sides of the metasternum have an irregular white mark, and the abdominal segments have on each side a row of spiracle-like white dots.

Length 11–12 mm. ; width 6–6½ mm.

Hab. The whole of South Africa.

GEN. HOPLOSTOMUS, McLeay,
Ill. Zool. S. Afric., 1838, iii., p. 20.

Mentum convex, divided from the ligular part by a sharp transverse keel, the outer face sloping thus equally towards the base and towards the apex, the labial cavity is angularly produced at the base, and the last joint of the labial palpi is broadly swollen outwardly and somewhat acuminate, the upper margin of the ligula is broadly arcuate ; maxillæ robust and very hairy, the upper lobe armed with a long, falcate, very sharp tooth, and the inner one with a shorter, simple one ; antennæ of the usual type ; clypeus narrowed in front with the margin slightly reflexed, the head is separated from the clypeus by a very plain keel extending from one canthus of the eyes to the other ; prothorax strongly attenuated laterally from past the median part to the apex, nearly straight in the posterior part with the hind angle somewhat obtuse but not rounded, base strongly arcuated above the scutellum which is not very much longer than broad at the base ; elytra elongate, narrower at the apex than at the base, deeply sulcate on the disk and on each side of the suture ; pygidium sub-vertical ; spiracle of the last abdominal segment not raised ; prosternum with an anti-coxal vertical spine ; anterior tibiæ bi-dentate ; legs moderately robust ; joints of tarsi sub-cylindrical and set close to each other, claws weak.

HOPLOSTOMUS FULIGINEUS, Oliv.,
Ent., i., 6, p. 20, pl. 3, fig. 12 ;
Gory and Perch., Mon., p. 110, pl. 15, fig. 1.

Black, glossy ; antennæ, especially the club, flavous ; clypeus marginate in front, the margin slightly reflexed, weakly carinate in the centre, punctate-striolate ; head depressed in the frontal part,

and also lightly carinate longitudinally in the centre, as well as on each side in addition to the transverse keel, it is punctate in the centre, and striolate above the eyes; prothorax marginate laterally, punctate, the punctures round, simple, separated by a smooth interval about equal to their diameter; scutellum impunctate, carinate in the centre of the apical part; elytra strongly impressed in the scutellary region, having on each side one stria along the suture which is raised in the hind part only, and a conspicuous dorsal sulcus on each side of which the space is raised and sparingly punctate, the sides, the hind part, and also the sulcate part are strigillate; under side and legs glabrous, strigose.

Length 18–19 mm.; width 11 mm.

Hab. The whole of Natal, the Transvaal, Southern Rhodesia, Cape Colony, except the south-western part.

This species is met with in bee-hives devouring the honey, and it ranges in Africa from the Cape to Senegal.

Gen. CŒNOCHILUS, Schaum.,
Germ. Zeitschr., iii., 1841, p. 268.

Mentum sub-quadrate at the base, gradually but slightly ampliated from about the median part to the anterior the angles of which are broadly rounded, and the fore margin is narrowly incised or sinuate in the centre, the outer face is hairy, deeply grooved longitudinally in the centre and slopes very gently in the anterior part towards the margin; maxillæ somewhat robust, but elongated, upper lobe armed with a strong, long, bifid tooth, inner lobe provided with a similar but shorter tooth; clypeus moderately long, convex in the centre of the junction with the head, slightly dilated laterally towards the apex, the angles are rounded and the anterior margin is more or less deeply sinuate, on the vertex is a transverse keel, wanting or obliterated, however, in some species; antennal club shorter than the pedicel, of equal length in both sides and with a faint longitudinal groove on the outer joint; prothorax plainly narrower than the elytra, sub-orbicular or broadly rounded laterally at the base which is straight above the scutellum, this latter part being very long and very sharply acuminate; elytra elongated, sub-parallel, but strongly sinuate above the side-pieces, plane, more or less distinctly costulate; anterior tibiæ moderately dilated at apex and strongly bi-dentate, intermediate and posterior legs uni-dentate on the upper side, the intermediate and hind tarsi longer than the tibiæ, the anterior ones shorter and more or less nodose at tip; pygidium vertical or somewhat convex; sternal process very small; spurs of hind legs long

and sharp in the ♂, blunt and with the outer one compressed and rounded at tip in the ♀; prosternum with a vertical spine-like process before the coxæ; tarsal claws moderately long.

I have restricted to this genus all the species in which the outer face of the mentum is not greatly swollen, and is broadly and deeply excavated.

The species of this genus are termitophilous in South Africa, and some have a very wide range. The sexual differences are often great in either sex. The genus is represented in Africa, also in India, Assam, and Hongkong, where their habits are probably the same.

Key to the Species.

A². Legs not simple in both sexes.

B². Prothorax plainly grooved longitudinally.

Terminal part of hind tibiæ produced inwardly in a hamate process as long as the hind spur (♂) .. .. *calcaratus.*

Terminal part of intermediate and hind tibiæ with an inner arcuate process (♂) .. .. *armiger.*

Terminal part of hind tibiæ produced into a short rectangular process supporting the hind spurs (♀) .. .. .. *vagus.*

B¹. Prothorax not plainly grooved longitudinally. Anterior femora deeply notched at apex, inner basal part of anterior tibiæ emarginate (♂) .. .. *agynsibanus.*

A¹. Legs simple in both sexes.

B². Vertex of head with a transverse keel.

C². Prothorax not grooved longitudinally.

Body glabrous on the upper side; prothorax with the outer angles not completely rounded; punctures of the prothorax round, with smooth intervals, those of the elytra plainly cicatricose .. .. *propinquus.*

Body briefly but somewhat densely pubescent on the upper side; prothorax nearly orbicular; punctures scabrose, shagreened; elytra punctulate, hardly costulate .. .. *termiticola.*

Body glabrous; prothorax with the hind part broadly rounded, laterally, the punctures rounded, with nearly smooth intervals; elytra deeply punctate, each plainly quadri-costate .. .. *turbatus.*

C¹. Prothorax grooved longitudinally.

Body briefly yet plainly pubescent on the upper side; prothorax broadly rounded laterally behind, very plainly shagreened; elytra with four costæ on each side, intervals not striolate; pygidium of ♀ with a very broad depression .. .. *sulcatus.*

Body glabrous on the upper side; prothorax as in the preceding species, but roundly punctate; elytra with four costæ on each side, the three first intervals striolate; pygidium of ♀ excavated underneath, the upper edge of the excavation notched .. .. *analis.*

B[1]. Vertex of head without a transverse keel.

C[2]. Prothorax grooved.

Moderately shiny, glabrous; prothorax ampliate, rounded behind, closely punctate; elytra much broader than the thorax, the suture and three costæ on each side raised. Intervals aciculate .. .. .. *procerus.*

C[1]. Prothorax not grooved.

Very shiny; prothorax depressed; each elytron with four juxta-sutural strioles running in pairs, discoidal part convex .. .. *emarginatus.*

Cœnochilus calcaratus, Westw.,
Thesaur. Entomol., p. 39, pl. xii., fig. 3.

Male: Piceous black, sometimes piceous red, moderately shiny on the upper side; clypeus and head sub-foveolate punctate, the punctures almost contiguous and each bearing a minute, greyish hair, anterior margin of clypeus fairly deeply sinuate; prothorax nearly orbicular, covered with closely set, round, fairly deep punctures separated by a smooth interval narrower than their own diameter in the anterior part, but nearly equal in the posterior where there is a short, median, very shallow longitudinal impressed line and two narrow, transverse impressions alongside the basal margin; scutellum irregularly punctate, sub-tectiform in the posterior part; elytra not broader at the base than across the median part of the prothorax, nearly parallel, very elongated, the suture is sub-carinate, and there are on each side two somewhat wide, little raised, yet distinct costæ separated by a somewhat broad stria, and two more, one reaching from near the humeral callus to about one-fourth of the length, and the other, which is nearly equally long, is situated above the lateral, the surface is covered with elongated, moderately closely set but non-contiguous, and non-cicatricose punctures; pygidium vertical, finely aciculated and very briefly pubescent, except along the margin where the hairs are long and fulvous; abdomen freely punctate; pectus and inner part of femora densely pubescent; inner part of tibiæ also pubescent, hind ones short, and with the terminal inner part produced into a long, subarcuate tooth directed inwardly, broad at base and sharp at apex, and longer and much more robust than the inner spur which is also very long.

Length 19 mm.; width 8 mm.

Hab. Southern Rhodesia (Salisbury).

This species was described from specimens from Sierra Leone and Old Calabar. The only example I have seen corresponds exactly to Westwood's figure.

CŒNOCHILUS ARMIGER, Westw.,
Thesaur. Entom., p. 40, pl. xii., fig. 2.

Male: "Black, with a slight castaneous tinge on the elytra, antennæ and body; beneath the head is rounded in front, and has a raised ridge between the eyes; the prothorax is nearly circular, the two posterior lateral angles being scarcely produced; the lateral margins are slightly deflexed, it has a fine central impressed line beyond the middle, and two impressions opposite the sides of the scutellum, which are rather deep, wide, and obliquely striolated. The scutellum is punctured at the base, and finely striolated behind. Each of the elytra has three elevated costæ, which are nearly impunctate, as is also the portion of each adjoining the suture, the apex of which is slightly acuminated. The intervening spaces of the elytra have a coriaceous appearance from being covered with an infinite number of minute aciculated lines close together. The pygidium is vertical and not convex and covered with fine aciculated transverse lines, the two posterior spiracles not being greatly enlarged. The fore tibiæ are dilated at the outer extremity, where they are notched so as to form two obtuse teeth; the four posterior tibiæ are furnished at the extremity on the under side with a long, obtuse, slightly curved spine, which is directed backwards, the two ordinary apical spurs being of the usual small size. The tarsi are flat and rather broad, with short, straight claws."

Length 17½ mm.; width 7½ mm.

Hab. Zululand, teste Westwood.

CŒNOCHILUS VAGUS, n. sp.

Female: Black, sub-opaque, antennæ, legs, and under side piceous brown; clypeus narrowly, but somewhat deeply incised in the centre, roughly plicate transversely, the head is also plicate, and the occipital transverse keel strong; prothorax ampliate, rounded laterally, with the basal angles broadly rounded, the base itself being narrowed, on the median part of the disk is a very distinct longitudinal impressed line reaching from base to apex, but less deep in the anterior than in the posterior part, and a shallow marginal depression on each side of the base, the surface is covered with deep,

sub-contiguous punctures set closer to each other in front than behind and somewhat strigillate on the sides; scutellum strigillate punctate; elytra very little broader at the base than the prothorax at its widest part and very elongated, the suture is conspicuously raised, and at a short distance from it is a deep sulcate stria, the interval being very slightly raised, the supra-humeral sulcate stria is very shallow, and does not reach beyond the middle, on the basal part the surface is covered with a network of elongate sub-foveate punctures turning beyond that part into a fine sub-longitudinal strigillation; pygidium finely aciculate, somewhat convex at the base, and with a short, apical, ill-defined median longitudinal ridge; abdomen deeply and numerously punctate; pectus closely punctured and briefly pubescent; inner apical part of hind tibiæ developed in a short rectangular process at the apex of which are inserted the thickened spurs, the inner of which is truncate; the anterior tibiæ are plainly sinuate inwardly at the base; this last feature, coupled with the shape of the inner apical part of the hind tibiæ, leads me to believe that in the unknown male these parts are not simple.

Length 22 mm.; width 8 mm.

Hab. Southern Rhodesia (Salisbury). Found dead on a termite mound. G. A. K. Marshall.

Cœnochilus agynsibanus, Raffr.,
Rev. and Mag. Zool., 1877, p. 336.

Male: Dark chestnut-brown, moderately shiny; clypeus somewhat more dilated at apex than the other species, anterior margin very deeply sinuate in the centre; head and clypeus foveate punctate, the punctures elongated and separated by transverse walls; prothorax as broad as long, moderately ampliate rounded laterally in the centre, the posterior angles not rounded, but not projecting much, covered with round, even punctures, separated by a smooth interval, on the base are two marginal moderately broad impressions, but no median discoidal longitudinal line; scutellum punctulate; elytra elongated, broader than the prothorax at its widest part, bi-costulate on each side next to the suture, and with only two plain striæ, and the usual interrupted supra-lateral costule, the surface is covered with moderately closely set punctures round at the base and along the sides, and cicatricose in the intervals between the costules; pygidium vertical, but slightly convex at apex, closely aciculate, and with a longitudinal moderately raised median line; abdomen and legs aciculate-striate; pectus and femora densely

pubescent; anterior femora deeply, arcuately notched near the apex; anterior tibiæ deeply emarginate inwardly at base; anterior tarsi short, the joints thick, those of the intermediate and posterior legs as broad at apex as at base, set very close to each other, shiny, and with only a few bristles at the joints.

Length 20 mm.; width 8 mm.

Hab. Natal (Pine Town).

This species was originally described from the Zanzibar mainland.

Cœnochilus propinquus, n. sp.

Male: Dark chestnut-brown, glabrous on the upper side and somewhat shiny; clypeus weakly, transversely plicate, vertex punctate and with a somewhat obliterated occipital ridge; prothorax as broad as long, but only moderately ampliate rounded laterally, and with the lateral basal part only moderately broadly rounded, the outer margin has a fringe of long, light fulvous hairs, there are no traces of a longitudinal median impressed line, but there is a fairly broad sub-triangular, marginal impression on each side of the base, and the surface is covered with round punctures separated by a smooth interval about equal in size to their diameter; scutellum closely aciculate at the base and numerously punctate in the lower part; elytra broader than the prothorax at its widest part and having on each side two juxta-sutural somewhat wide costules not much more raised than the posterior part of the suture, and a somewhat obliterated one at about the median part, the first two are separated by shallow lines, but not so the third, and the surface is covered with elongated cicatricose punctures almost coalescing; pygidium vertical and with a faint, median longitudinal raised line, very closely aciculate; abdomen strigillate; pectus clothed with a dense, fulvous pubescence; joints of intermediate and hind tarsi long, slightly nodose only at apex, and bristly; hind tibiæ of normal shape.

Length 17–18 mm.; width $7\frac{1}{4}$–8 mm.

Hab. Cape Colony (Graham's Town); Orange River Colony (Bothaville). Found in the latter locality with termites.

This species is doubtless allied to *C. emarginatus*, but it is twice as long, and the shape of the maxillary teeth is not so slender.

Cœnochilus termiticola, Wäsm.,
Plate XLV., fig. 8.

Illustr. Zeitschr. f. Entomol. v., 1900, p. 67, pl. v., fig. 1.

hospes, Péring., Ann. Soc. Ent. Fr., 1900, p. 71.

Male: Dark chestnut-brown; clypeus closely granular, occipital

part with scabrose punctures replaced at the base by deep, simple ones, whole surface clothed with a flavescent, somewhat long and dense pubescence, finer and sparser on the occipital part the transverse keel of which is distinct, and in front of which are two faint impressions, fore margin of clypeus slightly sinuate; prothorax almost orbicular, very plainly marginate all round, covered with moderately deep punctures separated by transverse, narrow, raised walls in the anterior and lateral parts, but not on the hind part of the disk, and each bearing a moderately short appressed, flavescent hair forming a plain pubescence, there is a very faint, longitudinal median impressed line, visible only near the base, on each side of which is a narrow, transverse, marginal depression, and above these and equi-distant from the base and the centre are two plain, discoidal impressions; scutellum briefly yet conspicuously hairy at the base and sides; elytra shaped as in *C. termiticola*, and with the dorsal costæ similar, but the surface is covered with non-cicatricose punctures, bearing each a small, appressed hair similar to those on the prothorax, the suture is not raised in the posterior part; pygidium convex towards the apex, briefly pubescent; abdomen equally briefly yet densely pubescent; pectus, femora, and inner side of tibiæ pubescent, the pubescence of all these parts fulvous; hind tibiæ of normal shape; joints of intermediate and hind tarsi long, briefly pubescent.

Allied to *C. termiticola*, from which it differs by the sculpture of the head, the more orbicular prothorax, and the somewhat dense pubescence.

This species has been met with termites by Dr. H. Brauns in the Orange River Colony, in the termitarium of *Termes tubicola*, Wasm. There can be no doubt that *C. termiticola*, Wasm., and *C. hospes*, Pér., are the same species, and I am not sure that, as far as date of publication goes, my name will not prevail. My example was obtained from British Bechuanaland (Kenya).

Length 18–22 mm.; width 8–9 mm.

Cœnochilus turbatus, Westw.,
Thesaur. Entomol., p. 37, pl. xii., fig. 7.

C. braunsi, Wasm., Illustr. Zeitsch. f. Ent. v., 1900, p. 82, fig. 2.

Piceous, shiny, antennal club chestnut-brown at apex; clypeus plainly angular laterally, closely foveolate punctate with the walls of the punctures transversely plicate in the centre, and somewhat longitudinally so on the vertex, the transverse ridge is very plain, and the anterior margin is broadly and deeply emarginate; prothorax

ampliate rounded laterally past the median part, marginate, broadly rounded at the basal angles, the base has two very narrow, transverse marginal impressions, the disk has no traces of a median impressed line, and the surface is covered with round, deep punctures separated by a smooth interval nearly equal to their diameter, in front, however, the interval is narrower, and the sides of the anterior part are reticulate in the female, but not distinctly so in the male; scutellum sparsely punctulate on the sides; elytra elongated, broader than the prothorax, and having each six fine striæ, the four inner of which are more conspicuous than the other two, and the three first intervals are plainly raised and sub-tectiform behind, these striæ begin at some distance from the base which is deeply but not closely punctate, each raised interval bears a series of somewhat remote punctures, and the sides are also punctate; pygidium finely aciculate, plicate transversely, convex at apex; abdomen very closely punctate, the punctures asperous, and each bears a hair; pectus with the same sculpture but more densely pubescent; legs simple in both sexes.

Although I have not seen Westwood's type of *C. turbatus*, I am satisfied from his figure and description that *C. braunsi*, Wasm., the co-type of which was communicated to me by Dr. H. Brauns, is the same species.

The shape of the genital armature of the male differs considerably from that of the other species of *Cœnochilus* known to me.

Length 16 mm.; width 6½–7 mm.

Hab. Orange River Colony (Bothaville); Natal (Durban, teste Westw.).

CŒNOCHILUS SULCATUS, Schaum.,
Plate XLVII. fig. 29.
Germ. Zeitschr., iii., p. 270;
Gory and Perch., Mon. Cét., p. 113, pl. xv., fig. 6;
Westw., Thesaur. Entom., p. 41, pl. xi., fig. 10.

Black, somewhat dull, head, prothorax, and elytra with a short, sub-squamiform, greyish pubescence denser on the head and prothorax than on the elytra; under side clothed with a greyish flavescent pubescence very dense and very long on the pectus; antennal club dark chestnut-brown; clypeus with a long, but not deep emargination, the surface of both clypeus and head is scabrose, and plicate transversely, the sides of the clypeus are sub-angular, and the occipital keel is not very conspicuous; prothorax ampliate rounded laterally in the posterior part the angles of which are broadly rounded, the disk is plainly sulcate longitudinally from the base to a

short distance from the apex, and on each side of the base is a deep, non-transverse, marginal impression, the surface is strongly shagreened; scutellum longitudinally plicate; elytra broader than the prothorax, deeply sinuate laterally, plainly quadri-costate, the two median dorsal costæ are sub-tectiform, and the intervals are not very distinctly striate, the base is covered with sub-cicatricose punctures coalescing along the scutellar part, and the rest of the surface is coriaceous; propygidium and pygidium finely plicate transversely, pygidium convex in the male, the lower part deeply and roundly impressed at apex in the female; under side closely scabrose punctate, legs simple in either sex.

Length 14–15 mm.; width 6–6¼ mm.

Hab. Cape Colony (Willowmore); Transvaal (Lydenburg); Natal (Frere).

Cœnochilus analis, Westw.,
Thesaur. Entomol., p. 39, pl. xii., fig. 10.

Black, moderately shiny; clypeus slightly sinuate in front, very closely and somewhat roughly foveolate punctate, the occipital keel well defined; prothorax marginate laterally and ampliate rounded from the median part to the base the angles of which are broadly rounded, plainly sulcate longitudinally on the disk from the base to about the median part, and having a conspicuous marginal but not transverse impression on each side of the base, the surface is covered with round punctures divided by a smooth interval equal to their own diameter; scutellum longitudinally strigillate; elytra not very much broader than the prothorax at its widest part, each one plainly quadri-costate with the costæ tectiform and the intervals indistinctly striate, the intervals, the costæ, and the sides are deeply and moderately closely punctate; each puncture bears a minute hair; pygidium strigillate, convex in the male, but having in the female a deep, broad, transverse depression the upper edge of which is deeply incised; abdomen and pectus very closely scabrose punctate, and both densely pubescent; legs normal in either sex.

Length 11–13 mm.; width 5–6 mm.

Hab. Natal (Pine Town); Transvaal (Waterberg).

Cœnochilus procerus, Schaum.,
Verz. Lam. Melit., p 62.
Westw., Thesaur. Entomol., p. 36, pl. xi., fig. 8.

C. paulus, Burm., Handb. d. Entom., iii., p. 665 (nec. G. and P.).

"Black, moderately shiny, glabrous above, with a yellowish pubes-

cence underneath; vertex of head strongly convex, transverse occipital keel wanting; prothorax very closely punctate, and having a median smooth groove in the posterior part, and two intra-angular aciculate posterior impressions; scutellum punctate, the margin raised; epimera rufo-hirtose; elytra with the suture and three costæ on each side little raised, intervals aciculate; pygidium rufo-hirtose. Of nearly the same size as *C. maurus*, from Senegal, but broader, the elytra are shorter, the prothorax more orbicular, and widest across the median part. The head is also not carinate between the eyes, the prothorax has no frontal tubercle and no dorsal impressions."

Length 25 mm.

Hab. South Africa.

I have not met with this species.

CŒNOCHILUS EMARGINATUS, Westw.,
Thesaur. Entomol., p. 41, pl. xii., fig. 1.

"Black, very shiny, head and prothorax very closely punctate; clypeus moderately rounded; prothorax rounded in front, depressed above, broadest after the median part and with the posterior angles rounded, and marked on each side with a minute, very shallow impression placed between the emarginate part and the posterior angles, sides and head with a yellow, setose pubescence; scutellum and elytra sparsely punctate, sides and apical part of the latter more punctate, and each one with four very slender longitudinal strioles running in pairs, next to the suture and parallel with it, disk convex between the median part and the strioles, humeral part prominent, behind the humeral part is a curved sulcus, and another much less deep, oblong, sub-lateral and situated beyond the middle; abdomen convex; pygidium convex, setose; antennæ piceous. The polished surface of this insect, and the peculiar form of the prothorax, will distinguish it from its congeners. It bears indeed a certain amount of resemblance to some of the species of *Cymophorus*, but the very acutely bi-dentate galea of the maxillæ, and the great length of the bi-dentate terminal spine of the mando prevent its introduction into that genus. The elytra are twice the length of the widest part of the prothorax; the four posterior tibiæ are longitudinally sulcated, and there is a fine impressed line down the middle of the metasternum."

Length 13 mm.; width 5 mm.

Hab. Damaraland.

I have not met with this species.

ANATONOCHILUS, n. gen.

Mentum parallel and plane as far as the palps cavity, greatly thickened vertically on the outer face and with the thickened part, which is in width half the length of the whole mentum, completely excavated and transversely striolate, the two margins are plainly sinuate, and below the excavation is a longitudinal keel on each side; teeth of upper lobe very long and slender, those of the inner lobe also long and very sharply bifid; the other characters are the same as in *Cœnochilus*.

The difference in shape of the mentum justifies the removal of this insect into a separate genus, to which belong also *C. campbelli*, Westw., from Eastern India; *C. curtipes*, Westw., from Assam; *C. taprobanicus*, Westw., from Ceylon and Eastern India, &c. In Westwood's figure of *A. glabratus* the deep and broad excavation of the mentum is not sufficiently indicated.

ANATOCHILUS GLABRATUS, Bohem.,
Insect. Caffr., ii., 1857, p. 50;
Westw., Thesaur. Entomol., 1873, p. 37, pl. xii., fig. 9.

Piceous black or chestnut-brown, very shiny, glabrous except for a short fulvous pubescence on the anterior and intermediate femora, and the ante-coxal fore process; head with a transverse, not highly raised carina on the vertex, clypeus highly convex in the centre, arcuately but not deeply emarginate in the anterior part, transversely plicate except behind the occipital keel, where it is punctate; antennæ piceous red; prothorax ampliate rounded laterally in the median part, slightly sinuate below that, and with the outer angles plainly but not broadly rounded, surface closely punctate, the punctures round and separated by a smooth interval inferior in width to their own diameter, but with a slightly raised sub-undulating wall in the anterior part, especially in the female; scutellum weakly punctulate; elytra deeply and narrowly sub-punctate striate in the discoidal part, but with the intervals plane and impunctate; pygidium moderately convex and faintly keeled longitudinally in the male, more convex and keel less in the female, impunctate or non-striolate like the under side; legs glabrous, tarsi almost glabrous, and nodose at apex.

Length 12–17 mm.; width 5–7 mm.

This species is termitobious. "Flies only at sunset" (G. A. K. Marshall).

Hab. Transvaal (Johannesburg, Lydenburg); Southern Rhodesia (Salisbury); Limpopo River and Senegambia, teste Westwood.

GEN. PLAGIOCHILUS, Wasm.,

Illustr. Zeitsch. f. Entom., v., 1900, p. 5, p. 82.

The characters differentiating this genus from *Cœnochilus* are the shape of the prothorax, which is ampliate rounded at about the median part and straight or only slightly sinuate thence to the outer angles which are acute, and of the spiracle of the last abdominal segment which is spiniform. The elytra have two geminate striæ on each side of the suture, and the pygidium is strongly swollen in the centre. Wasman, who founded the genus on *P. intrusus*, ascribes to it "small eyes nearly obsolete and not visible from above or in front"; this is not the case, however. Wasman included also in the genus *P. setosus* (Burm.), which he took to be a new species and named *P. argenteus*, and in which the eyes are very large, and the shape of the clypeus, as well as that of the mentum, is very different from that of *P. intrusus*.

This genus is thus not very homogeneous, unless it be divided into two sections:—

I. C^2. Clypeus very convex in the centre, emarginate in front.
II. Clypeus not convex, marginate in front.

The species seem to be all myrmecobious. *C. angustatus*, Westw., from Guinea, will also have to be included in the genus.

Key to the Species.

A^2. Ligular part plane on the outer part, incised or emarginate in front.

B^2. Clypeus very convex.

Ligula incised; prothorax with round punctures; elytra quadri-striate and quadri-costulate on each side .. .. .. *intrusus.*

B^1. Clypeus plane, marginate and reflexed in front.

Ligula sinuate in front; prothorax transversely plicate with a white lateral margin; elytra not distinctly costulate, cicatricose punctate and each with six rows of minute squamose hairs .. .. *diversus.*

Ligula slightly sinuate in front, body very hairy; prothorax reticulate punctate; elytra non-costulate, scabrose punctate *tomicoides.*

A^1. Ligula bulging strongly on the outer face.

Body briefly pubescent; head with a median tubercle; prothorax with a broadly oval impression on the disk.. .. .. *corniger.*

Body pubescent, head simple, prothorax not impressed, strongly reticulate; elytra roughly reticulate punctate and with one dorsal costa, suture raised .. .. *setosus.*

PLAGIOCHILUS INTRUSUS, Wasm.,
Illustr. Zeits. f. Entomol., v., 1900, p. 83.

P. intrusus, Péring., Ann. Soc. Ent. Fr., 1900, p. 71.

Black, moderately shiny, glabrous, antennal club chestnut-brown; head without any transverse keel, clypeus very convex in the centre, impressed on each side of the anterior part, and deeply emarginate in front, very closely punctate like the head; prothorax with a median, discoidal, longitudinal impression somewhat broad but interrupted in front and behind, and a sub-quadrate marginal one on each side of the straight base, the surface is covered with round punctures nearly confluent in the anterior part, but the posterior is reticulate plicate; scutellum plicate; elytra slightly broader than the prothorax, nearly parallel, faintly costulate, numerously striolate in the dorsal part; the strioles are geminate, and the sides deeply punctate; pygidium transversely striolate and conspicuously produced in the centre into a large, round swelling; under side glabrous, abdomen punctate, pectus strigillate; legs strigillate punctate, glabrous, but the inner part of the intermediate and posterior tibiæ have a series of remote ciliæ; claws moderately short.

Length 9–10 mm.; width $3\frac{1}{4}$–$3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury, Upper Hanyani River).

This species is myrmecobious, and was found by Mr. G. A. K. Marshall entering the formicarium of *Plagiolepis custodiens*, Sm.

PLAGIOCHILUS DIVERSUS, n. sp.

Black, only moderately shiny, antennæ and palpi ferruginous; ligular part plane, not incised in front; clypeus not convex in the centre, parallel, rounded laterally in front and with the anterior margin sub-triangularly reflexed, head simple, both head and clypeus very closely and somewhat deeply punctate; prothorax quite straight laterally in the posterior part, strongly sloping in front, deeply and very closely punctate in the anterior part and transversely plicate in the posterior; along the lateral margin and also part of the basal there extends a cretaceous band; scutellum strigillate; elytra not broader than the prothorax, parallel, depressed, not distinctly costate, but having on each side of the suture, and at some distance from it, two duplicate striæ, another but less distinct one at about the median discoidal part, and a fairly plain one above the sides, the surface is covered with an irregular network of punctures, closely set and confluent on the sides, each elytron has six series of very short,

greyish-white squamiform hairs, and a cretaceous band of scales along the lateral and posterior margins; pygidium broadly and bluntly conical in the centre and having on this projection two cretaceous squamose patches; abdominal segments, pectus and hind legs fringed or clothed with greyish-white, sub-squamose hairs; anterior tibiæ very bluntly bi-dentate in the male, bluntly rounded and sub-truncate at apex in the female.

This species is myrmecobious, and was found by Mr. G. A. K. Marshall entering the formicarium of *Plagiolepis custodiens*, Sm.

Length $7\frac{1}{2}$–8 mm.; width $3\frac{1}{4}$–$3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury, Sebakwe).

PLAGIOCHILUS SETOSUS, Burm.,
Handb. d. Entomol., v., p. 564;
Westw., Thesaur. Entomol., p. 43, pl. xii., fig. 8.

argenteus, Wasm., Illustr. Zeitschr. Ent., v., 1900, p. 103.

Black, moderately shiny; clothed on the upper side with flavescent whitish silky hairs; antennal club and palpi testaceous; ligular part bulging in the outer face, slightly sinuate in front; head and clypeus very deeply punctate, and clothed with a long appressed pubescence; the latter is very slightly sinuate in front, with the margin reflexed; prothorax ampliate rounded at about the median part, and slightly sinuate beyond, strongly reticulate, and without any dorsal impression; scutellum strigillate; elytra with the suture and one dorsal costa on each side plainly raised, the humeral costule is somewhat distinct, between the suture and the dorsal costa are two geminate striæ, but the suture and the remainder of the surface are roughly reticulate punctate, there are rows of short, upright hairs which are denser and appressed along the lateral margins; pygidium somewhat slanting, very convex towards the apex and densely pubescent there; under side pubescent; anterior claws somewhat long.

Length $8\frac{1}{2}$–9 mm.; width $3\frac{1}{4}$–$3\frac{1}{2}$ mm.

This species, according to Mr. G. A. K. Marshall, is myrmecobious, and found with *Plagiolepis custodiens*, Sm. It flies in sunshine, and feeds on flowers of *Protea* at Salisbury; my examples from Natal and the Limpopo River were caught on flowers. Westwood states that Herr Guienzius found it in ants' nests, the individuals being covered with the ants, which seemed to suck from them a gummy exudation.

Hab. Natal (Maritzburg); Transvaal (Upper Limpopo River); Southern Rhodesia (Salisbury).

PLAGIOCHILUS CORNIGER, Westw.,
Thesaur. Entomol., p. 42, pl. xii., fig. 4.

"Small, narrow; head with a raised tubercle between the eyes; prothorax sub-oval, and having in the centre a large, oval impression: elytra elongated, sub-parallel; antennæ rufo-piceous. The head is rather short, the clypeus broad with the fore margin slightly emarginate in the middle; the prothorax is broader than the head, the sides rounded, the greatest width being about the middle of its length, the anterior angles are not prominent, but the posterior ones are acute; the elytra are very narrow; the head is punctured rather strongly and closely, as is the front of the promotum, with the punctures circular, but behind the middle the punctures are more linear, and so arranged as to form two oval circles. The elytra are punctured, the punctures emitting luteous setæ, those on the basal half of the elytra being sometimes more or less confluent, forming two or three ill-defined abbreviated striæ in addition to the two decided striæ on each side of the suture. The anterior tibiæ are broad and bi-dentate, the tarsi flattened, with the joints dilated; the abdomen is convex beneath; the under side is black and glossy, punctured and setigerous, as are the top and under sides of the prothorax."

Length 7½ mm.

Hab. South Africa.

This species is allied to *C. setosus*, and the shape of the ligular part is identical.

PLAGIOCHILUS TOMICOIDES, Har.,
Monatsb. Berl. Akad. Wissensch., 1878, p. 214, fig. 4.
P. leoninus, Pér., Trans. S. Afric. Phil. Soc., vi., 1892, p. 39.

Black, covered on the upper and under sides with a very long, sub-lanuginose, erect, flavescent pubescence; antennal club testaceous; ligular part flat outwardly, sinuate in front; clypeus sinuate in front but with the margin not reflexed, and foveate like the head, the pubescence is erect and very dense; prothorax covered with confluent, oval, cicatricose punctures with a double ring, every one of which is setigerous; discoidal part without impression; scutellum with similar but more elongated punctures; elytra elongated, very deeply sinuated laterally, sub-obliquely impressed below the humeral callus, but not costate, on each side of the suture which is raised in the hind part only are two geminate striæ, the remainder of the surface is covered by sub-reticulate, elongated setigerous punctures; pygidium strongly strigillate longitudinally, convex, with the convex

part densely setigerous; legs impunctate, anterior tibiæ sharply uni-dentate at the tip in the ♂, bluntly so in the ♀; tarsal joints somewhat compressed, of equal width at both ends, and set close to each other.

Length 8–10 mm.; width $2\frac{1}{4}$–3 mm.

Hab. Southern Rhodesia (Salisbury; Ovampoland).

PROXENUS, n. gen.

Mentum and ligula quadrate, the former produced behind into a wide, slightly sloping, or nearly horizontal lamina scooped at apex, crescent-like, from one end to the other, upper lobe of maxillæ with a long, very sharp tooth, the inner lobe with two superposed sharp teeth, last joint of maxillary palps a little longer than usual; frontal part very convex, clypeus almost vertical; eyes not large or bulging much; head strongly carinate on each side, and having in the centre two strong longitudinal keels united near the vertex by another transverse keel, and reaching the base of the clypeus the anterior part of which is sinuate; antennæ of *Cœnochilus;* prothorax constricted along the anterior margin which is carinate and sharply angular in the lower part, quadrate, with the base narrowed, not broader than the anterior margin and straight; scutellum of the normal shape; elytra broader than the prothorax, strongly sinuate laterally, depressed, distinctly striate with the intervals plane; spiracle of the last abdominal joint sharply tuberculiform; pygidium vertical, and horizontally produced underneath towards the last ventral segment; mesosternum with a narrow triangular process reaching only the centre of the coxæ; prosternum with the vertical ante-coxal process of the *Cœnochilides;* legs massive, anterior tibæ strongly dilated at apex, bluntly bi-dentate outwardly; joints of all the tarsi strongly compressed laterally, impressed at the base on either side, nodose on the upper part, of nearly equal width at either end, set very close to each other, and glabrous but for one very short apical seta; claws very short, hardly hooked.

PROXENUS SQUAMIGER, n. sp.

Plate XLVII., fig. 19.

Black, opaque, clypeus slightly strigillate on the sides of the anterior part; head roughly plicate in between the four keels but reticulate punctate in the posterior part; antennæ black; prothorax roughly plicate reticulate longitudinally, the carinate sides are

bluntly bi- or tri-incised, in the centre of the disk is a very broad groove obliterated in front and behind, and a conspicuously broad, sub-transverse impression on each side of the base, each elongate reticulate puncture bears a very large, oblong ovate, dully flavescent, sub-appressed scale, partly rubbed off, however, in the only example I have seen; scutellum strigillate reticulate at the base, but obsoletely so at apex; elytra very deeply sinuate laterally, one-third broader than the prothorax, depressed, and having on each side ten very plain, simple, impunctate striæ the intervals of which are plane, like the suture, and bear each a series of thick appressed oblong ovate dull yellowish scales, slightly removed from each other; propygidium finely plicate transversely; vertical part of pygidium covered with scales similar to those of the elytra, and issuing each from a broad, shallow puncture; under side glabrous except for a few scales on the pectus, the ante-coxal process of the prosternum being only slightly pubescent.

Length 14½ mm.; width 6½ mm.

Hab. Southern Rhodesia (Hartley).

This species is remarkable for its shape and vestiture.

ASTOXENUS, n. gen.

Plate XLVII., fig. 9.

Mentum plane but thickening on the outer face from about the middle to the ligular part which is truncate at apex, widely ampliate and deeply hollowed out, being half as wide across as the whole length, deeply excavate, with the front edge notched in the centre, the palps cavity is small, lateral; upper maxillary lobe armed with a single very long, very slender, and sharp tooth, inner lobe provided with a less slender but also non-bifid tooth; clypeus convex in the centre, moderately carinate laterally and also in the median part, anterior margin sub-diagonal laterally, nearly straight but slightly sinuate in the centre; antennæ of *Cremastochilides;* eyes large but not bulging much; prothorax narrowly constricted along the anterior margin which is sharply carinate, sides bluntly triangular, but the anterior part is a little more rounded than the posterior which is oblique, the base being a little narrower than the apex with the angles blunt but distinct; scutellum sharply triangular and as wide as the whole base owing to the very sloping episterna and humeral part of the elytra which are sub-parallel from the humeral part, deeply sinuate laterally, plane, slightly narrower at apex than at base and bi-striate on each side of the suture; spiracle of the last abdominal segment strongly developed; pygidium

very convex in the centre (♂), abdomen concave; legs robust, anterior tibiæ bluntly bi-dentate, joints of all the tarsi compressed, very short and broad, being, with the exception of the apical ones, slightly broader than long, very closely set, and probably no longer free; claws very short, barely hooked.

Allied to *Proxenus*, but differing in many characters.

ASTOXENUS AMICUS, n. sp.

Dull black; head and clypeus with small, shallow, irregular punctures on the sides of the clypeus, and sub-cicatricose ones on the centre and on the vertex, each puncture bearing a most minute sub-flavescent hair; prothorax ampliate rounded laterally from the anterior part to about the middle, which is sub-angular, narrowed obliquely thence to the base which is narrow but with the angles quite distinct, it is marginate all round, the anterior margin being highly carinate, there is no discoidal or basal impressions, and the surface is covered with contiguous, ovate, somewhat deep punctures separated by slender raised walls; scutellum covered with horse-shoe-like punctures; elytra depressed, with the suture slightly raised and having on each side of it a single stria, and at a short distance from it two more which are not, however, geminate, the rest of the dorsal surface is sub-scabrose punctate, and punctate only on the sides, each puncture bearing a minute, sub-squamiform hair; propygidium transversely plicate, reticulate and sparingly pubescent; pygidium granulose and with similarly minute, sparse hairs; abdomen covered with horseshoe-like punctures, which are completely closed and form a conspicuous reticulation on the pectus, each puncture bearing also a minute hair; there is no mesosternal process, and the vertical prosternal ante-coxal one is pubescent.

Length 14 mm.; width 6 mm.

Hab. Southern Rhodesia (Melsetter).

GEN. PILINURGUS, Burm.

Handb. d. Entom., iii., 1842, p. 658.

Mentum with the outer face of ligula greatly thickened, the upper part wider than half the length of the whole mentum, somewhat slanting, deeply depressed in the centre, outer margin of the enlarged part incised in the centre, inner margin sinuate with the angles rounded, the depression is strigose and hairy like the whole outer face, and obturates completely the mouth; upper maxillary

lobe with two parallel, strong, not hamate teeth, inner lobe with one tooth only set almost between the two upper teeth; clypeus plane, marginate in front, the margin strongly reflexed, head simple; eyes large; antennæ of the normal shape; prothorax hexagonal with the basal angles distinct; scutellum broad at the base but only moderately long; elytra plane, much broader than the prothorax, deeply sinuate laterally, and with the humeral part very much raised, the suture is depressed for the greater part of the length, and there is on each side a high costa which is continued from the humeral part to the apex; pygidium vertical; the spiracle of the last abdominal segment sharply tuberculate; anterior tibiæ strongly bi-dentate; tarsal joints, even the last, short, strongly nodose; claws very weak; prosternum with a vertical, ante-coxal process.

This genus includes only one species.

PILINURGUS SUBUNDATUS, Westw.,
Thesaur. Entomol., p. 32, pl. ix., fig. 1.

Black, moderately glossy, and covered with a muddy, somewhat squamose coating; head and clypeus deeply scrobiculate punctate and sparingly hairy, anterior part of the clypeus strongly marginate with the median part quite transverse and strongly reflexed; prothorax as ampliated laterally from the anterior part to the centre which is somewhat sharp, as from the base to the centre, the base itself is slightly sloping on each side of the median part, the angles are very plain, it is moderately grooved longitudinally in the posterior part of the disk, covered with round, rugose, contiguous punctures, briefly setigerous; scutellum indistinctly strigose punctate; elytra one-third broader at the base than the prothorax, and having on each side a high costa reaching from near the base and coalescing a little below it with the humeral ridge, to the apex, and situated nearer to the deflexed side than to the not raised suture, the discoidal part below the scutellum is strongly impressed, and the surface is covered with oblong, strongly cicatricose, non-contiguous punctures; propygidium and pygidium aciculate, the latter sub-lanuginose; under side roughly cicatricose punctate.

I know nothing of the habits of this species which is met also near Lake Tanganyka.

Length 7–9½ mm.; width 3½–5 mm.

Hab. Natal (Weenen, Tongaats River); Transvaal (Lydenburg); Southern Rhodesia (Sebakwe).

GEN. LISSOGENIUS, Schaum.,
Ann. Soc. Ent. Fr., 1844, p. 420.

Chtonobius, Burm., Handb. d. Entomol., v., 1847, p. 567.

Mentum not obturating completely the buccal aperture, incised laterally at the base and with the inner face projecting strongly at the insertion of the palps which is very low, ampliate thence, but with the palps cavity very long, slightly arcuate and not emarginate in front, impressed longitudinally on the outer face; maxillæ robust, upper lobe armed with a long and robust, strongly falcate tooth densely villose outwardly, inner lobe with a strong tooth nearly bent at right angles, and also villose outwardly; last joint of labial palpi very long, slightly curved outwardly, straight inwardly, projecting well beyond the mentum and slightly longer and stouter than the maxillary one; head with a sharp, transverse keel broadly interrupted in the centre between the eyes; clypeus deflexed, parallel for half the length, strongly angular there, triangularly narrowed thence to the anterior part which is strongly incised and transversely carinate on each side on the upper part at a short distance from the apex; eyes narrow on the upper side, large underneath; prothorax one-third broader than long, broadly ampliate in the median part which is very obtusely angular, and much narrowed in the posterior part the basal angles of which are very sharp; scutellum long, sharp; elytra hardly broader at the base than the prothorax at its widest part, well sinuated laterally, parallel thence to the apex, bi-costate on each side; propygidium with the last spiracle sharp; pygidium sub-vertical, simple; mesosternum, simple; prosternum with a long, vertical process; joints of anterior tarsi very short and strongly nodose, the apical one strongly constricted at half length, the two basal ones acuminate underneath, those of the posterior ones not longer, also thick, but not nodose; claws very small and weak; anterior tibiæ with the apex moderately sharp and having two blunt teeth outwardly set close to each other, and a smaller one above these.

This genus includes two species, one of which is recorded from Guinea.

LISSOGENIUS CONSPERSUS, Burm.,
Handb. d. Entomol., v., p. 567.

luteovarius, Bohem., Ins. Caffr., ii., p. 55.

Black, sub-opaque with the upper side, especially the elytra, maculated with small terrenous patches; head and clypeus roughly foveolate, prothorax with a broad but somewhat indistinct impression

on each side of the disk, and a broader sub-quadrate one in the centre, and covered with round, cicatricose foveolate punctures; scutellum punctulate in the same manner; elytra with two distinct dorsal costæ on each side, the inner one less conspicuous than the other, the two broad spaces between the suture and the outer costa are filled with greatly elongated, non-contiguous cicatricose punctures, the walls of which form an irregular duplicate strigillation, the deflexed part is roughly punctate; pygidium transversely swollen in the centre in the male, simple in the female, roughly punctate; under side and legs roughly punctate; joints of anterior tarsi more nodose than in any other of the congeneric forms.

Length 10–11 mm.; width 4½ mm.

Hab. Transvaal (Potchefstroom).

This species has been met by Guienzius in a formicarium, in Natal.

Gen. GENUCHUS, Kirby,
Trans. Linn. Soc., xiv., 1825, p. 569.

Mentum parallel, straight in front with the outer angles moderately rounded, strongly swollen on the outer face of what should be the ligular part, with the lower portion of the inflated part projecting behind as a broadly conical vertical process overhanging the base of the mentum; upper lobe of maxillæ with a long, sharp tooth very slightly bent at the tip, inner lobe thickly pubescent and armed with a short, straight tooth bluntly acuminate inwardly; last joint of labial and maxillary palps cylindrical; first antennal joint greatly dilated and compressed; head strongly deflexed, highly carinate at its junction with the clypeus and with the median part of the keel triangular, frontal part impressed and with a blunt occipital keel, clypeus quite vertical and with the anterior part porrect and emarginate; prothorax ampliate rounded laterally or not, not marginate and with the posterior angles broadly rounded; scutellum long, very sharply acuminate; elytra with the sides parallel, broader or as broad as the prothorax, bi-costate on each side in the South African species; pygidium large, transversely convex in the middle; under side roughly punctate; prosternum with a very short ante-coxal sub-conical tubercle penicillate at tip, and a post-coxal small or large vertical tubercle; anterior tibiæ tri-dentate outwardly, the upper tooth far removed from the other two; joints of anterior tarsi sub-nodose, the others increasing in width at apex, claws moderately long and curved; anterior and posterior tibiæ bi-dentate on the upper side.

The form of the mentum and also that of the clypeus is certainly

one of the most singular, among the singular species of this group of Cetonides.

They are found in the flowers of *Protea mellifera*, or other kindred species, where they seemingly feed on the sugary liquid contained in the cup-like inflorescences.

Two species are recorded with certainty from South Africa. A third one is supposed to be also South African, but there seems to be good reasons to believe that it inhabits Senegambia.

Key to the Species.

Mentum vertical; prothorax ampliate rounded; post-coxal process of prosternum small .. .. *hottentotus.*

Mentum vertical but curving inwards at apex; prothorax straight laterally; post-coxal process conspicuously tuberculated, truncate at tip .. .. *nigriclavis.*

GENUCHUS HOTTENTOTUS, Fabric.,
Syst. Ent., p. 52;
Gory and Perch., Monogr. d. Cét., p. 14, pl. 16, fig. 8;
Oliv., Ent., i., 6, p. 56, pl. vii., fig. 35.

cruentus, Fabr., Mant. Ins., i., p. 32.
sanguinolentus, McLeay, Ill. Zool. S. Afr., iii., p. 18.
dealbatus, Dist., Ann. Nat. Hist., xix., 1897, p. 578.

Black, glabrous, shiny, with the base of the prothorax and the greatest part of the disk of the elytra reddish (*cruentus*, *sanguinolentus*) or black with only a longitudinal streak of red on the dorsal part of the elytra (*hottentotus*), or the basal part of the prothorax reddish and the elytra black (*dealbatus*); at the apex of each elytron are two small white patches, the outer one of which is sometimes continued on the sides for a short distance; head deeply impressed in the centre and striolate, the basal keel is slightly bi-tuberculate in the male, not in the female; prothorax with the sides of the anterior part striolate punctate, on the median and posterior part of the disk the punctures are sparsely scattered, and there are a few only above the base; scutellum punctate at the base; elytra slightly broader than the prothorax and having on each side two deep striæ next to the suture, and two dorsal costæ with two broad, deep intervals, these intervals and the rest of the surface are deeply and broadly punctate, but the costæ bear only a few punctures; pygidium swollen, roundly keeled transversely, deeply punctate and bearing occasionally two small macules; under side punctate, central part

of the basal margin of the prosternum more or less distinctly tuberculated.

This species is subject to considerable variation in the colour of the prothorax and elytra. In the neighbourhood of Cape Town, the red and black ones are found together, and I have captured them *in coitû*. *G. dealbatus*, Dist., is the northern representative of *G. hottentotus*, and is found in the Northern Transvaal, but I cannot consider it even as a variety. The shape of the genital clasps of the male is absolutely the same in all three so-called species.

Length 9½–13 mm.; width 4–6 mm.

Hab. Cape Colony (wherever *Protæa mellifera* and other allies are found); Transvaal (Pretoria, Zoutpansberg).

GENUCHUS NIGRICLAVIS, Bohem.,
Ins. Caffr., ii., 1857, p. 51.

Black, shiny, antennæ black, but occasionally flavescent; elytra with a small median white patch on the second dorsal costæ, and a white lunule under the apical callus; head with the anterior keel very sharp and strongly dentate in the centre, posterior keel bituberculate; the frontal impression is reticulate plicate, the posterior part reticulate only; prothorax nearly straight laterally, being attenuated towards the apical part only but the posterior part is broadly rounded, broadly impressed longitudinally in the centre, and also, but less deeply, on each side of the disk the anterior part and the sides of which are striolate reticulate, while the central and posterior parts are covered with fossulate punctures somewhat remote in the longitudinal impression; scutellum striolate; elytra not broader than the prothorax, bi-costate on each side, striolate punctate near the suture and with the two costæ separated by a geminate punctate stria, the whole surface is regularly and deeply punctate; pygidium foveolate punctate; under side glabrous, deeply punctate, the punctures almost cicatricose on the pectus; prosternum with a long, vertical, tubercle-like process truncate at apex.

I have seen an example from Ovampoland which differs from the type form in having the antennal club flavescent, an elongated white patch on each of the two elytral costæ, a much broader lunule at apex; and a small spot in the median part of the outer margin; the pygidium has a broad white patch on each side, and each abdominal segment a minute one. This variety may be known as *G. nigriclavis*, var. *ovampoensis*. I have, however, seen one example only, and the white markings of the Cremastochilides are very variable.

Length 10–12 mm. ; width 4–4¾ mm.

Hab. Natal (Zululand) ; Southern Rhodesia (Salisbury) ; Ovampoland.

GEN. TRICHOPLUS, Burm.,
Handb. d. Entom., iii., 1842, p. 660.

Mentum plane, small, roundly dilated laterally, the ligular part much narrowed at the palps cavities, last joints of labial palps short, somewhat swollen, maxillary with the upper lobe long, not falciform, somewhat bifid, lower lobe with a smaller tooth slightly bi- or trifid; clypeus very convex at the base, head with a basal tubercle or ridge, highly carinate longitudinally above the eyes which are very small and depressed; basal antennal joint large, club large, obovate; prothorax variable in shape, either as broad at base as at apex, or cordate and strongly constricted at base; scutellum long, sharply acuminate; elytra sub-parallel, either not sinuate laterally or with a distinct sinus; propygidium wide, slanting; pygidium very wide, vertical, or sloping forwards; mesosternum with a rounded carinate process between the coxæ, prosternum with a long, vertical process broadly compressed and truncate at the tip; legs quite glabrous; tarsi tri-jointed, the joints fused, the claws very small; anterior tibiæ dentate at apex only; intermediate and posterior compressed, and without spine on the upper side.

Two of the seven species included in this genus are known now to be myrmecobious, and they most probably have all the same habits. Unlike some of the myrmecobious species of this Tribe they have not been met with as yet outside the South African area. They have a very peculiar, not very homogeneous facies.

Key to the Species.

A³. Elytra with a single dorsal costa on each side and strigillate.

B³. Prothorax plane, not narrowed or constricted behind.

Elytra with the strioles obliterated on the sides of the suture .. .. *lævis.*

B². Prothorax cordate, strongly constricted behind.

Discoidal part deeply excavated, sides not incised.

Elytra plainly striate diagonally on each side of the dorsal costa.

Prothoracic cavity roundly plicate; pygidium with a transverse horizontal lamina emarginate in the centre.. .. .. *schaumi.*

Prothoracic cavity plicate in the anterior part only; propygidium carinate longitudinally in the centre; pygidium with a basal, narrow, transverse lamina .. .. *spectabilis.*

Prothoracic cavity moderately deep, foveolate punctate; propygidium not carinate; base of pygidium with the upper margin transversely grooved, head not impressed .. *cordicollis.*

A². Elytra without any dorsal costa, head impressed, strigillate .. *vicinus.*

B¹. Prothorax obliquely incised laterally; each elytron with six striæ; pygidium laminate at the base .. .. *incisus.*

A¹. Elytra with a dorsal costa, and not strigillate.

Prothorax with a large cavity extending from apex to base, margins highly reflexed, deeply notched laterally, upper part impunctate; pygidium broadly laminate at the base, and with a spine-like median process in the centre .. .. *paradoxus.*

TRICHOPLUS LÆVIS, Gory and Perch.,
Monogr. d. Cét., p. 115, pl. xvi., fig. 2;
Burmeist., Gen. Ins., 1848, No. 36; figs. 1–8;
Westw., Thesaur. Entom., p. 33, pl. ix., fig. 10.

Black, very shiny; antennæ piceous red; clypeus convex in the centre, slightly impressed laterally, nearly parallel with the anterior angles rounded, deeply emarginate in front, obsoletely punctate, like the head which bears on the vertex a not very sharp, triangular tubercle; prothorax sub-quadrate, strongly declivous laterally in front, quite depressed in the posterior part of the disk, slightly so on each side of the base which is straight, of nearly equal width as the apex with the angles rounded, it is covered with remote, slight, found punctures bearing each a most minute hair; scutellum smooth and having on each side a series of four or five punctures; elytra as broad as the prothorax, sinuate laterally, not attenuate behind, plane, having on each side a distinct, sharply tectiform dorsal costa, the space between the costa and the very little raised suture has a few very evanescent diagonal striæ, whereas the area bordering on the other side of the dorsal costa is conspicuously striate diagonally from there to the deflexed lateral part which is deeply punctate, as is also the apical marginal part; under side and legs impunctate, the robust femora and the tibiæ are strongly compressed; ante-coxal process of the prosternum dilated triangularly at apex and truncate; propygidium carinate longitudinally in the centre; pygidium as broad as long, vertical but slightly convex in the centre, carinate, and very briefly pilose.

Length 13 mm.; width 7 mm.

Hab. Cape Colony (Namaqualand).

TRICHOPLUS SCHAUMI, Westw.,
Thesaur. Entom., 33, pl. ix., fig. 10.

Black, sub-opaque, clypeus deeply depressed on the anterior part on each side, and also deeply emarginate in front, strigillate longitudinally, frontal part foveolate punctate, vertex with a very distinct, slightly rounded transverse keel; prothorax broadly ampliate rounded from the anterior part to about the median and produced thence to the base in the shape of a truncate cone, the base being only one-third of the greatest width, the anterior part of the disk is greatly raised, almost vertical and in the centre is a very deep almost orbicular excavation the sharply emarginate walls of which coalesce slightly past the median part with the sharply carinate outer margins, the sides of the excavation are strigillate, the anterior part of the excavation is also strigillate but the median and posterior are deeply foveate punctate, each puncture bearing a short greyish bristle; scutellum covered with broad, reticulate punctures; elytra with the epimera very sloping, and about as wide at the base as the prothorax at its widest part, sub-parallel but a little ampliated laterally behind, the suture is moderately raised and there is on each side a sharp dorsal costa, set nearer to the raised suture than to the deflexed lateral part, the whole surface is covered with sub-longitudinal strioles which are, however, more diagonal on the sides of the suture, and in the striæ are seriate but somewhat remote, very short, sub-flavescent hairs; propygidium foveate punctate, slightly carinate longitudinally in the centre, and having a fringe of glandular hairs; pygidium vertical but with the upper margin produced into an horizontal lamina emarginate in the centre, and greatly overhanging the vertical part the base of which is covered with yellowish glandular hairs springing from elongated, strigillate punctures; the sides of the abdominal segments are similarly but more roughly punctured and the two last segments bear laterally the same kinds of flavous hairs, the legs are aciculate, greatly compressed, the pectus is punctulate, and the ante-coxal process is triangularly truncate.

Length 9 mm.; width $3\frac{1}{2}$ mm.

Cape Colony (Stellenbosch) in the formicarium of *Plagiolepis custodiens*, Sm.

TRICHOPLUS SPECTABILIS, Péring.,
Ann. Soc. Entom. Fr., 1900, p. 70.

Black, moderately shiny, hairless, antennæ piceous red; clypeus of the same shape as *T. schaumi*, but carinated in the centre on each side of the anterior depression, and having on the vertex a

very plain bluntly triangular tubercle; the sides of the clypeus are striolate, and the head closely punctate; the prothorax is excavated in the same manner, but only the anterior part of the excavation is striolate, the rest of the surface is foveate punctate, but the centre of the lowest part of the excavation is smooth longitudinally; scutellum very sharply carinate in the centre and strigillate; elytra slightly broader at the base than the prothorax at its widest part, on each side is a sharp dorsal carina the area intervening between that costa and the slightly raised suture is sub-diagonally striate, the wider one between the costa and the deflexed sides is deeply striate quite longitudinally and the interspaces have each a series of very remote, shallow punctures; propygidium with a distinct longitudinal median carina reaching short of the apex, and with the spiracle conspicuously knobby (♂); the upper margin of the pygidium is glabrous, broadly grooved in the median part, the outer edge is reflexed and slightly sloping, and the surface appears to be depressed on that account; the sides of the abdomen are broadly reticulate plicate, the pectus is striolate; the ante-coxal process is transversely dilated at apex and truncate; the femora are sparsely punctate and the tibiæ greatly dilated in the middle and compressed.

Length 11½ mm.; width 5 mm.

Hab. Natal; no exact locality.

TRICHOPLUS CORDICOLLIS, Waterh.,
Ann. and Mag. Nat. Hist. (5), viii., 1881, p. 319.

Black, with the antennæ and palpi piceous red; shape of *T. schaumi*, but with the elytra more parallel, the clypeus is very sharply bi-carinate in the centre in the anterior part, but the sculpture is the same, the anterior part of the head is not impressed, and there is a distinct tubercle at the base; the prothorax is excavate in the centre but not so deeply and in a more quadrate form, and the anterior part is very deeply impressed vertically on each side, the dilated part is more angular near the lateral constriction, the excavation and also the sides are filled with foveate punctures bearing each a short, fulvescent hair; scutellum striolate; elytra with one dorsal carina, striolate in the same manner as the two species alluded to, and with series of moderately remote, short, fulvescent hairs; propygidium simple, spiracle moderately sharp; pygidium vertical with the upper margin narrowly grooved, but simple; abdominal segments strongly striate reticulate; pectus striolate; ante-coxal process broadly dilated at apex, truncate and excavate there.

Length 10 mm.; width 4 mm.

Hab. Transvaal (Pretoria, Lydenburg); Natal (Zululand, teste Waterhouse).

TRICHOPLUS VICINUS, Péring.,
Ann. Soc. Ent. Fr., 1900, p. 70.

This species may easily be taken for *T. cordicollis*, and I am not sure that it is not merely a varietal form of the same. The differences consist in the anterior part of the head being distinctly impressed and bordered by a transverse arcuate keel; the anterior wall of the more orbicular impression of the prothorax is much more raised and more arcuate in front, the punctures are more distinctly foveate, but in both there is a faint longitudinal central impressed line; the shape and sculpture of the elytra are identical; the upper margin of the pygidium, however, is more broadly grooved transversely, the outer edge projects very slightly, and the pygidium itself is strongly slanting forward.

Length $9\frac{1}{2}$–10 mm.; width $3\frac{4}{5}$–4 mm.

Hab. Cape Colony (Kimberley, found with ants; Namaqualand) Great Namaqualand; Southern Rhodesia (Salisbury).

TRICHOPLUS INCISUS, Péring.,
Plate XLVII., fig. 12.
Trans. S. Afr. Phil. Soc., iv., 1892, p. 104.

Black, moderately shiny; antennal club sub-flavescent; anterior part of clypeus deeply impressed, almost excavate and strigillate there, aciculate on the basal part and on the head which bears on the vertex a blunt small tubercle-like prominence and is foveolate along the base; prothorax with a very deep sloping excavation edged by a transverse rounded wall in front and a lateral one uniting at about two-thirds of the length with the rounded lateral margin, and so deeply incised diagonally as to form there a long, triangular process, the posterior part of outer margin, which is bluntly tuberculate next to the incision, is straight, and the basal angles are sharp, the sides of the prothorax limited by the two rounded margins of the excavation and of the lateral border are longitudinally excavated and roughly striate, the excavation is impunctate, and towards the basal part there is a faint, median impressed line; scutellum strigillate punctate; elytra with the humeral part sloping, sub-parallel, having on each side six deep dorsal striæ which do not reach the apex and the three outer alone reach the base, the deflexed part is striolate punctate; propygidium simple; pygidium very slanting

forward, grooved along the margin, the outer edge reflexed; abdominal segments roughly plicate longitudinally; ante-coxal prosternal process as in the four preceding species.

Length 7–8 mm.; with $2\frac{1}{4}$–$2\frac{1}{2}$ mm.

Hab. Transvaal (Klerksdorp, Pretoria, Potchefstroom); Southern Rhodesia (between Limpopo and Zambesi).

Trichoplus paradoxus, n. sp.

Plate XLV., fig. 55.

Piceous, very glossy; clypeus impressed on each side but without any central longitudinal groove, vertex of the head plainly tuberculate, surface most finely punctulate, the punctures remote and each bearing a most minute hair; prothorax deeply excavate in the centre, the excavation edged in front by a round, semicircular wall, roundly carinate laterally, the carina incised at about the median part and continued thence as a highly marginate ridge overhanging the base, but emarginate in the centre, the excavation runs thus from the anterior to the extreme posterior part, the lateral margin is deeply incised at about the median part where it unites with the incised part of the lateral wall of the excavation, and the basal angles project to a considerable distance, the excavation and also the sides are impunctate, and the lateral part between the outer margin and the lateral wall of the excavation is slightly excavate, but the edges of the incised part of both the dorsal excavation and also of the lateral margin are fringed with a few thick, fulvous hairs; epimera very transverse; elytra somewhat deeply sinuate laterally, slightly ampliate past the middle and having the suture very highly carinate, and on each side an equally sharp dorsal costa with a somewhat depressed space on each side of it, on the surface are scattered small, obsolete punctures bearing each a most minute hair; propygidium simple sparsely punctulate, the punctures briefly setigerous; pygidium with the upper side strongly sloping backwards in a very broad lamina, attenuate rounded laterally, and with the median part produced into a long, triangular spine-like process slightly blunted at tip, the part of the pygidium overhung by the basal lamina is directed forward almost sub-horizontally, and is slightly convex in the centre; under side almost impunctate; ante-coxal process of the pronotum of equal thickness; femora and tibiæ more slender and longer than in the other species of the genus.

Length 12 mm.; width 4 mm.

Hab. Transvaal (Pretoria).

I have seen one example only of this most singular species.

GEN. NYASSINIUS, Westw.,
Trans. Ent. Soc. Lond., 1879, p. 199.

Mentum long, and somewhat narrow, parallel, swollen at the base on the outer face and strongly sloping thence to the truncate anterior part, palps cavity median, apical joint of palps fusiform outwardly, slightly curved inwardly, upper lobe of maxillæ almost porrect, broadly hollowed inwardly, inner lobe with a small but also broad, slightly curved tooth; clypeus produced into a bluntly triangular, laminate, highly reflexed process (♂), or reflexed only (♀), head simple, eyes very large; prothorax as long as broad, plainly hexagonal, sharply incised laterally within the base, the sharply angular incised part projecting slightly beyond the straight base; scutellum broadly and sharply triangular; elytra very broad at the base, conspicuously emarginate laterally at about one-fifth of the length and parallel thence, very highly uni-costate in the dorsal part; spiracle of the propygidium very sharp; pygidium vertical, very highly carinate longitudinally in the centre from base to apex, truncate at apex with an elongated tubercle on each side of the truncate part (♂), or distinctly carinate longitudinally (♀); mesosternum with a triangular horizontal process projecting beyond the coxæ; prosternum simple; legs somewhat short, robust, anterior tibiæ dentate at apex only, very slightly sinuate above the apical tooth in the ♀, intermediate and hind ones without spines on the upper side; upper spur of intermediate tibiæ hooked; joints of anterior tarsi somewhat short and massive. Sexes similar.

Westwood describes two species, both from the neighbourhood of Lake Nyassa. Having received a long series of the two, I have been able to ascertain that they are the two sexes of one kind.

NYASSINIUS LUGUBRIS, Westw.,
Trans. Ent. Soc. Lond., 1879, p. 200, pl. 3, fig. 2, ♂.

N. maculipes, Westw., loc. cit., p. 199, pl. 3, fig. 1, ♀.

Rufous brown, sub-opaque, with the elytra partly covered with a luteous tomentum (♂), and having in the ♀ a flavescent median spot in the centre of each elytron; clypeus glabrous, head variolose punctate, the punctures very briefly squamigerous; the hexagonal prothorax is covered with wavy folds without any punctures, and on the sides are a few very short, squamulose luteous hairs, there is a deep median longitudinal impression reaching from the apex to the base, and a posterior one on each side; the scutellum is strigillate; the elytra have one dorsal costa very highly raised and sharp,

beginning at the same distance from the base as the apex of the scutellum and reaching the apical part, ending there in a conical tubercle, on the outside of which is another tubercle, there is also a conspicuous depression at the base on the inner side of the humeral callus, the dorsal part and the base are covered with cicatricose ovate punctures which are rounder on the sides and partly hidden by the luteous coating; pygidium with squamigerous, ovate, cicatricose punctures; truncate at apex, plainly carinate in the centre, and having in the male a moderately distinct elongated tubercle on each side of the truncate apical part; in the female this tubercle is elongated, keel-like, triangularly tuberculated at apex, and the surface is more densely squamose; abdomen squamose; legs deeply cicatricose punctate, each puncture bearing a squamose hair.

Length 10–11 mm; width 5 mm.

Hab. Southern Rhodesia (Salisbury, Sebakwe, Enkeldoorn).

Mr. G. A. K. Marshall informs me that, like *Trogodes rotundicollis*, this species feeds on low plants which have been attacked by *Coccidæ* or *Aphidæ*.

Gen. MYRMECOCHILUS, Wasm.,

Illustr. Zeitschr. f. Entom., v., 1900, p. 83.

Mentum strongly gibbose, apical part of the ligula scooped into a very broad, deep, slightly slanting depression, last joint of labial palpi reaching the inner edge of the excavation; outer maxillary lobe thick, dentate as is also the apex of the inner lobe; head carinate longitudinally in the centre; clypeus long, parallel, very deeply and triangularly incised in the centre in front and with the outer angles acuminate; eyes very large; prothorax sub-angularly ampliate rounded laterally before the median part, nearly straight thence, the base quite straight and the basal angles sharp; scutellum sharply triangular, as broad at the base as long; elytra only slightly broader at the base than the prothorax at its widest part, nearly parallel, highly uni-costate in the dorsal part, the costa projecting above the vertically declivous part; propygidium with the spiracles sharply acuminate; pygidium carinate longitudinally in the middle, at the base, and with the central part produced into a rounded horizontal tubercle projecting considerably beyond the apical margin; mesosternal process not projecting beyond the coxæ; anterior tibiæ dentate at apex only, posterior and intermediate ones without any spine on the upper part; tarsi short, almost transverse, compressed laterally.

This genus is very closely allied to *Rhagopteryx*, Burm., which was thought at one time to inhabit Java, but is a native of the West Coast of Africa (Cameroons).

MYRMECOCHILUS MARCHALLI, Wasm.,
Plate XLVII., fig. 11, 11*a*.
Illustr. Zeitschr. f. Entom., p. 84, v., figs. 4, 4*a*.

Black, opaque, with the whole head, a very broad marginal band on the prothorax, the whole of the deflexed part of the elytra as well as the posterior declivity, the sides of the pygidium and of the abdominal segments, and the pectus clothed with silvery-white contiguous appressed scales; clypeus and head covered with contiguous round punctures; prothorax plainly shagreened, slightly impressed longitudinally in the centre of the posterior part; scutellum longitudinally strigillate; elytra with the suture raised, the space between the latter and the punctate, rounded dorsal costa, which projects considerably beyond the apical part, has three geminate fine striæ with the intervals finely strigillate transversely; pygidium closely punctulate, the knobby part smooth; abdomen and pectus closely cicatricose punctate, legs quite smooth, glabrous.

Length 13 mm.; width 5 mm.

This species has been found by Mr. G. A. K. Marshall entering the formicarium of *Plagiolepis custodiens*, Sm.

Hab. Southern Rhodesia (Salisbury, Mtokos, Bulawayo, Sebakwe).

GEN. TROGODES, Westw.,
Thesaur. Entomol., p. 30.

Mentum sub-quadrate, plane, ligular part strongly swollen on the outer face at about the centre, and sloping thence to the anterior part which is rounded laterally, broader than across the base and slightly sinuate, the swollen central part of the ligula is densely hairy, the hairs very long; last joint of labial and maxillary palpi elongated, slightly curved outwardly; upper and inner lobe of maxillæ armed with a robust tooth slightly curved at the tip, and of nearly equal length, the outer part of the former is slightly villose, the inner margin somewhat pubescent; head simple, clypeus slightly narrowed laterally in front, plane, slightly impressed on each side at the apex the margin of which is strongly reflexed in the centre; prothorax roundly ampliated laterally in the centre, nearly equally attenuate in front and behind, and without any traces

of basal angles; scutellum only moderately long, very sharp; elytra a little broader at the base than at the apex, not deeply sinuate laterally, not costate; propygidium with the spiracle sharp, but little developed; pygidium simple, sub-vertical, swollen in the male; intermediate coxæ separated by a narrow, round mesosternal keel; prosternum with a minute porrect process with a few setæ; anterior tibiæ bi-dentate outwardly, intermediate and posterior ones with a tooth on the upper side; tarsal joints ampliated at the apex, claws moderately long and curved.

TROGODES ROTUNDICOLLIS, Bohem.,
Insect. Caffr., ii., p. 54;
Westw., Thesaur. Entomol., p. 30, pl. xi., fig. 1.

Black, not glossy, generally covered with an earthy indumentum, every puncture on the upper and under sides emits a minute, luteous hair; head and clypeus with round, contiguous punctures; the prothorax, which would be orbicular but for a tendency to be slightly bluntly angular in the median part, is covered with similar but slightly larger punctures, in the centre of the disk are two small, spot-like smooth areas, and a shallow, very short, median longitudinal line above the base which is arcuately rounded; scutellum punctate; elytra broader than the prothorax, sinuate laterally and having on each side two broad longitudinal impressions, so shallow, however, that the intervening space is not raised enough to be considered as a costule, and a supra-lateral one which is deeper in the posterior part, the dorsal part is covered with very elongated, cicatricose punctures the sharp walls of which form an irregular, interrupted strigillation; pygidium, under side, and legs roughly punctate.

Feeds on low plants that have been attacked by *Coccidæ* or *Aphidæ* (G. A. K. Marshall).

Length 9–10 mm.; width 4–4¾ mm.

Hab. Transvaal (Johannesburg, Potchefstroom, Lydenburg); Southern Rhodesia (Salisbury).

ANATONOCHILUS, n. gen.

Mentum proper short, deeply excavated on each side, ligular part broadly arcuately dilated, separated from the mentum by a transverse smooth keel overhanging the two basal cavities of the mentum proper, and triangular and setulose in the centre, strongly sloping thence to the anterior part the margin of which is plainly reflexed in the centre, the palpal cavities are very much reduced, angular at the

base, the last labial joint is very long, slightly curved inwardly and very slender but does not reach the anterior margin, the surface is obsoletely punctulate; upper lobe of maxillæ with a very long, slender tooth curved inwardly at right angles, the inner lobe with a somewhat robust tooth, and inwardly densely pubescent; head simple, clypeus very convex at the base, roundly dilated towards the apical part which is marginate, the margin slightly reflexed; eyes moderately large, the canthus angular; basal antennal joint very compressed; prothorax one-third broader than long, more distinctly ampliate rounded laterally in the anterior than in the posterior part the basal angles of which are small but distinct, and the base itself broadly emarginate above the scutellum; the latter moderately elongated; elytra broad, strongly sinuate laterally, and having on each side one plain and one evanescent costule; pygidium sub-vertical, slightly convex; spiracle of the last abdominal segment almost invisible; under side glabrous, prosternal process very short; anterior tibiæ bluntly bi-dentate outwardly; legs robust; tarsal joints of intermediate and hind legs sub-cylindrical, those of the anterior somewhat short, the four basal ones sub-triangular, claws weak, small.

Hoplostomus platycephalus, Boh., differs too much from *H. fuligineus* to be retained in the same genus. The habits of the two are also not the same, the latter being always found in bee-hives, while *A. platycephalus* is met with crawling on the ground, and also "under dry cowdung" (G. A. K. Marshall). Other observations lead me to think that it is a myrmecobious species.

ANATONOCHILUS PLATYCEPHALUS, Boh.,
Insect. Caffr., ii., p. 49;
Westw., Thesaur. Entomol., p. 22, pl. ix., fig. 8.

Black, little glossy; head deeply punctured with the sides of the clypeus only punctulate; antennæ black; prothorax covered with deep punctures, sub-confluent on the sides, more scattered in the posterior median part of the disk where the interspaces are smooth, whereas on the sides they are somewhat raised; the median longitudinal line of the disk is well-nigh obliterated, and there are no basal transverse impressions; scutellum deeply punctate along the base and on each side; elytra broader than the prothorax, slightly narrower at the base than at the apex, the space on each side of the suture is somewhat depressed, there is a moderately raised round costa with a plain, somewhat broad, but shallow sulcus reaching from below the base to a certain distance from the apex, and next

to it a short, longitudinal elevation which can hardly be called a costule; the whole surface is deeply and somewhat broadly punctate, the punctures separated from each other by a space wider than their own diameter; pygidium aciculate punctate; abdomen impunctate; pectus and legs conspicuously plicate.

Length 18–19 mm.; width 10 mm.

Hab. Transvaal (Rustenburg, Pretoria, Lydenburg, Potchefstroom, Upper Limpopo), Southern Rhodesia (Salisbury, Bulawayo, Umcheki Riv.).

Gen. SCAPTOBIUS, Schaum.,
Germar's Zeitschr., iii., 1841, p. 260.

Mentum transverse, very large, obturating completely the mouth, parallel laterally, slightly sinuate on each side of the anterior margin, the base is sharply angular laterally and prolonged in the centre in a triangular spine-like process, fitting against the base of the coxæ, the insertion of the palps is in the inner side, close to the base of the mentum, the two basal joints seemed fused together, the apical one is swollen at the base sharply acuminate, and fits against the sides, the maxillæ are somewhat robust, the inner lobe is strongly and sharply carinate longitudinally on the outer face, sharp and hamate at tip, the upper lobe is armed with a very long tooth curved at the tip, and the inner part is very little pubescent; head convex, or tuberculate, clypeus quadrate, with the anterior angles moderately rounded and the anterior margin only slightly reflexed; prothorax ampliate rounded laterally in the anterior part, more attenuate in the posterior, deeply incised, and with the upper angle sharp above the base which is straight with the angles moderately rounded; elytra oblong-quadrate, plane, more or less plainly costate; spiracles of the propygidium sharply tuberculate; pygidium vertical; intermediate coxæ divided by a very narrow space, prosternum without an acute coxal process; anterior tibiæ tri-dentate outwardly; intermediate and posterior with a spine on the upper side; anterior tarsi 4- or 5-jointed, the joints of all the tarsi somewhat swollen at apex.

The insects included in this genus do not seem to have been met with beyond the South African area; they are found crawling on the veld after rains, or under stones with ants; they are then covered with mud. One of them, *S. capensis*, has been met twice to my knowledge in the formicarium of *Plagiolepis custodiens*, Sm.; and Guienzius states that he discovered *S. aciculatus* in a similar place, but in company with *Paussus cucullatus*. This *Paussus*, however, is not usually found with *Plagiolepis custodiens*, but with *Pheidole punctulata*, a very different species of ant.

Key to the Species.

A². Anterior tarsi 4-jointed.

Elytra with two rows of distinct tubercles on each side .. .. *capensis.*

Elytra with two non-tuberculated costæ on each side .. .. *parrianus.*

A¹. Anterior tibiæ 5-jointed.

Elytra with two rows of distinct tubercles on each side.. .. *pentarthrius.*

B². Head with a distinct frontal tubercle.

Prothorax sharply angular laterally; elytra bi-costulate, transversely plicate; pygidium with a median sub-tectiform longitudinal carina .. .. *caffer.*

B¹. Head without tubercle.

Elytra with two faint costæ.

Pygidium with a short apical longitudinal carina .. .. *aciculatus.*

Pygidium with a conspicuous basal keel .. .. *natalensis.*

SCAPTOBIUS CAPENSIS, Gory and Perch.,
Monogr. d. Cét., p. 117, pl. 16, fig. 6;
Westw., Thesaur. Entomol., p. 52, pl. x., fig. 6.

Black, moderately shiny; head very convex in the frontal part, not tuberculated, very briefly setulose and covered with irregularly disposed granules; prothorax ampliate laterally in the anterior part, the ampliate part being sub-angularly rounded, and sub-diagonal thence to some distance from the base where it is deeply incised, the upper part of the incision is very sharp, the much narrowed basal part is straight, and the angles slightly rounded, the surface is conspicuously plicate longitudinally with granules interspersed, especially in the anterior part, the margin is briefly bristly, and there are a few luteous, very short setæ on the disk; scutellum strigillate; elytra with the suture tuberculate and having two rows of tubercles on each side, the edge of the lateral deflexed part is indistinctly tuberculate, the vertical part and the two dorsal intervals strigillate; pygidium vertical, transversely strigillate; under side roughly punctate strigillate; anterior tarsi 4-jointed, the joints short, nodose at tip.

Length $9\frac{1}{2}$–10 mm.; width 4–$4\frac{3}{4}$ mm.

Hab. Cape Colony (Hanover, Somerset East, Graham's Town), Transvaal (Rustenburg, Pretoria).

SCAPTOBIUS PARRIANUS, Westw.,

Trans. Entom. Soc., Lond., 1879, p. 201, pl. 3, fig. 3.

"Sub-elongate and narrow, chestnut piceous, clothed with very short luteous hairs; head with a short, little raised keel between the eyes; prothorax punctate, impressed and striolate longitudinally in the centre, the sides not serrate, and the posterior angles produced backwards; elytra not tuberculate, each one provided with two distinct, punctate striæ; epimera with luteous setose hairs; anterior tibiæ broad, strongly 3-dentate, tarsi 4-articulate.

This species differs from *S. capensis* as well as from *S. pentarthrius* and *S. caffer*, in wanting the tubercles on the elytra. *S. pentarthrius*, moreover, has 5-jointed tarsi, and *S. caffer* a very different shaped prothorax. From *S. aciculatus* and *S. natalensis* it differs in its more elongate and narrow form with the costæ of the elytra more strongly marked, the anterior tibiæ much broader and more strongly tri-dentate, the central impression of the middle of the pronotum more distinct, the epimera luteo setose, and the head with a slight elongate tubercle between the eyes. The mentum is wider than long, with the front margin nearly straight, the sides rounded, the base terminating in a central triangular flat tooth and the middle of the disk with a deep longitudinal impression. The disk of the pronotum is finely punctured, the hind part marked with fine parallel strigæ. The abdomen is convex, with a transverse deep impression at the base of the penultimate segment.

Length 11½ mm.

Hab. Transvaal."

I have not met with this species. In Westwood's figure the apical outer tooth of the anterior tibiæ is very sharp.

SCAPTOBIUS PENTARTHRIUS, Westw.,

Thesaur. Entomol., p. 52, pl. x., fig. 7.

This species might be easily mistaken for *S. capensis*, but the anterior tarsi are normally 5-jointed, and I have ascertained that this character occurs in both the sexes. It reaches a slightly greater size than *S. capensis;* the head, clypeus, and prothorax have the same shape, but they are not granulate, and the longitudinally strigillate surface of the prothorax is covered, as also the sub-granulose punctate frontal part of the head with a thick tomentum and short luteous hairs; the sculpture of the elytra is identical in both species, and the pygidium also simple.

Length 10–12 mm.; width 5½ mm.

Hab. Southern Rhodesia (Salisbury).

SCAPTOBIUS CAFFER, Schaum.,
Germar's Zeitschr., iii., p. 262;
Westw., Thesaur. Entomol, p. 52, pl. 10, fig. 8.

Black, sub-opaque, usually covered with a terrenous coating; head with a conical frontal tubercle; clypeus short, parallel, somewhat acuminate in front, truncate and angular, surface strigillate punctate; prothorax very broadly ampliated angulate laterally in the anterior part, being there one-third broader than long, attenuate thence, but not as diagonally as in the anterior part, to a deep incision with very sharp angle slightly above the much-narrowed base, the median part has a broad and shallow longitudinal sulcus and a moderately deep impression abutting on the margin on each side of it, the surface is variolose-strigillate, each puncture bearing a minute luteous hair; scutellum strigillate; elytra broad, subparallel, the suture is raised, and there are on each side two dorsal fairly plain costules with shallow transverse impressions, and a third but less distinct one, the intervals and also the shallow impressions of the costæ are filled with a slanting strigillation; pygidium vertical, simple; tarsi somewhat short; joints of nearly the same width at apex as at base.

Length $9\frac{1}{2}$–11 mm.; width $4\frac{3}{4}$–$5\frac{1}{2}$ mm.

Hab. Cape Colony (Somerset East, Mossel Bay), Transvaal (Pretoria).

SCAPTOBIUS NATALENSIS, Bohem.,
Ins. Caffr., ii., p. 53;
Westw., Thesaur. Entomol., p. 53, pl. x., fig. 9.

Black, little shiny, head convex, clypeus somewhat broadly rounded laterally at apex, and slightly sinuate in the centre, strongly shagreened especially on the vertex; prothorax of the same shape as in *S. capensis*, shagreened and somewhat finely granular in front, but with a slanting strigillation in the median longitudinal impression, the discoidal part above the lateral supra-basal incision is not impressed; scutellum strigillate; elytra with two fairly plain costules on each side, the suture is raised, the dorsal part is finely strigillate longitudinally and the deflexed part strongly coriaceous in the male, strigillate also in the female but with intervening very long variolate punctures breaking the strigillation of the dorsal part; pygidium with a high longitudinal median carina beginning at the base and reaching the centre; joints of tarsi moderately elongated, increased at the apex.

Length 9–10 mm. ; width 4½–5 mm.

Hab. Natal (Maritzburg, Newcastle), Transvaal (Pretoria, Lydenburg), Orange River Colony (Vredeford).

Scaptobius aciculatus, Sch.,
Ann. Soc. Ent. Fr., 1844, p. 420 ;
Westw., Thesaur. Entomol., p. 53, pl. x., fig. 10.

"Black, prothorax transverse, sides rounded, deeply incised on each side behind; elytra aciculate, obsoletely bi-costate. Very much like *S. capensis* in size and sculpture, and with the thorax similarly shaped, but distinct, however, owing to the shorter, aciculate and weakly bi-costate elytra. Body completely black, sparingly and briefly punctate, clypeus disconnected from the frontal part by a transverse keel. Thorax transverse, with the sides strongly rounded, deeply emarginate in front with the anterior angles produced, hind ones sharp, disjointed from the posterior margin by a deep incision, very numerously punctate on the upper part, and weakly impressed behind in the centre; elytra subquadrate, aciculate rugose longitudinally, plane, with the suture and two costæ weakly raised on each side. Pygidium with a short keel at the apex. Under side of the body and legs black; all the tarsi 5-jointed in the specimens examined."

This species is evidently closely allied to *S. natalensis*, Westw., but I have not yet met with it. From the figure given by Westwood, it would seem to be broader and shorter, and the prothorax is plainly cicatricose punctate instead of granularly shagreened; the pygidium is made to appear quite as carinate longitudinally in the centre as in *S. natalensis*, but the description explains that the carina is at the apex, instead of at the base, and there is no transverse clypeal ridge in *S. natalensis*.

Length 9 mm.

Hab. Cape of Good Hope and Port Natal.

Gen. PLACODIDUS, Péring.,
Ann. Soc. Ent. Fr., 1890, p. 68.

Body extremely compressed; mentum plane, closing completely the buccal part, transverse, almost quadrate but with the basal margin sharply triangular in the centre, labial palpi so small that they are hardly discernible; maxillæ short and somewhat robust, upper lobe with a strongly curved, very long and very sharp ooth, inner lobe with a short but sharp, little incurved tooth and a very

small one at about the median part of the margin, and having a few, short setæ between the two; ultimate joint of maxillary palps moderately long, sub-cylindrical, acuminate rounded at tip; clypeus convex in the centre, marginate laterally and in front, parallel and truncate; head simple depressed, basal joint of antennæ very large, strongly auriculate; eyes narrow at the top, very large underneath; prothorax ampliate rounded laterally from the anterior to near the median part, narrowed and straight thence to a short distance from the base where it is narrowed again, the base itself being straight with the angles moderately sharp; scutellum very long and sharp; elytra parallel, very little sinuate laterally, and covering the pro-pygidium; last spiracle sharp; pygidium vertical, horizontal underneath; meta- and mesosternum fused, the former very large, the prosternum has an horizontal ante-coxal process which is, however, covered by the triangular point of the mentum; legs massive, compressed, tarsal joints thick, connate, claws small, weak, anterior tarsi four-, intermediate and posterior five-jointed.

The species for the reception of which this genus is founded was found in the formicarium of a species which, from the description given me, I take to be *Plagiolepis custodiens*, Sm.

PLACODIDUS COMPRANSOR, Péring.,
Plate XLV; fig. 9.
Ann. Soc. Ent. Fr., 1900, p. 69.

Black, opaque; head and clypeus very finely plicate longitudinally, and with minute lutescent hairs in the interstices; prothorax striolate longitudinally and with an impression on each side as well as in the median part, all these impressions are very superficial, the minute, scattered hairs are more visible than on the head; scutellum also longitudinally striate, broader than the prothorax, nearly parallel, the suture is raised and there are on each side two sharply tectiform dorsal costæ and a carinate one above the deflexed part which is vertical, the intervals are filled with numerous fine, slightly wavy strioles, but the sides are irregularly punctulate, and here and there are minute hairs; pygidium transverse, very broadly and deeply impressed across in the centre, the upper part slants considerably above the hollowed portion and is incised in the middle, the hollowed, sub-horizontal part is more broadly foveate than the upper, and the whole under side and legs are finely strigillate and glabrous.

Length 9–11 mm.; width $3\frac{1}{2}$–4 mm.

Hab. Cape Colony (Malmesbury, Ceres).

DESCR. CAT. S. AFR. COLEOPTERA. PL. XLIV

Poujade pinx. Héliog. Dujardin. Paris

1 Cyphonistes vallatus. Wied.
2 Anisonyx ignitus. Cast.
3 Hoplocnemis crassipes. Oliv.
4 Pachycnema striata. Burm.
5 Monochelus aurantiacus. Burm.
6 Outeniqua festiva. Pér.
7 Scelophysa trimeni. Pér.
8 Sparrmannia vertumnus. Pal.
9 Macrophylla maritima. Burm.
10 Goliathus albosignatus. Boh.

ujade pinx

Heliog Dujardin Paris

1	Ranzania splendens.	Bert.	6	Mazoë jucunda.	Pér.
2	Dicranorhina layardi.	Pér.	7	Amazula suavis.	Burm.
3	Coelorrhina loricata	Jans.	8	Coenochilus hospes.	Pér.
4	Neptunides polychrous.	Thoms.	9	Placodidus compransor.	Pér.
5	Ischnostoma nasuta.	Sch.	10	Agenius plagosus.	Pér.

ADDITIONS AND CORRECTIONS.

Family LUCANIDÆ.

Gen. NIGIDIUS, McLeay, Cat. i., p. 9.

Nigidius rhodesianus, n. sp.

Black, shiny; mandibles with a highly raised, nearly vertical laminate process truncate at apex, slightly inflexed there and also somewhat hollowed inwardly at tip, the outer part is nearly smooth, the inner deeply and somewhat roughly punctate; head deeply impressed in the frontal part and also on the vertex, and covered with large, somewhat closely-set cicatricose punctures, the anterior angles are sharply triangular, but the sides are nearly straight, the genæ not projecting outwardly; prothorax nearly twice as broad as long, with the anterior angles acute and the posterior rounded, declivous in the centre of the anterior part and having there a vertical carina, the surface of the discoidal part and the median longitudinal cavity are impunctate, but the sides have moderately closely-set, not deep punctures; apical part of scutellum nearly impunctate; elytra cylindrical, very sharply costate with the intervals very narrowly punctate, the punctures not impinging on the walls of the costæ; sternum covered with shallow, cicatricose, not very closely-set punctures; abdominal segments sparingly punctate.

This species is distinguished from its other South African congener, *N. delegorguei*, Thoms. (Cat. i., p. 10) by the smooth discoidal part of the prothorax, the laminate process of the base of the mandibles, and the non-prominent genæ.

Length 13–17 mm.; width 4–6½ mm.

Hab. Southern Rhodesia (neighbourhood of Salisbury); Sebakwe.

Judging from the description, this species is probably closely allied to *N. dentifer*, Alb. (Deutsch. Entom. Zeitschr., xxviii., 1884, p. 16), from "Central Africa."

Nigidius divergens, Waterh.,

Ann. and Mag. Nat. Hist., 6th ser., vol. v., 1890, p. 38.

N. validus, Pér., Cat. i., p. 11.

GEN. FIGULUS, McLeay,
Hor. Entomol., i., 1819, p. 110.

This genus is very closely allied to *Nigidius;* the body is narrower and more depressed; the mandibles are shorter, simple at apex, without any vertical tooth at their base; the head is shorter and more transverse; the elytra have no striæ in the centre, and are sometimes without any; the legs are as in *Nigidius*.

The distribution of the species is also very much like that of the genus *Nigidius*.

FIGULUS ANTHRACINUS, Klug,
Ins. Madag., 1833, p. 173.

Shiny black, glabrous; head deeply excavated with the superciliary ridges very highly raised and sharp, and the genæ bisecting nearly the whole of the eyes, the surface of the head is covered with variolose punctures somewhat closely set, but more so on the anterior part than in the centre, on the vertex is an impunctate transverse band; prothorax parallel, plane on the dorsal part with the anterior vertical, and having in the centre a weakly developed tubercle; in the middle is a deep groove reaching neither apex nor base, and filled with somewhat shallow variolose punctures, the surface is smooth, but on the sides are to be seen some aciculate punctures spread from near the apex to about the median part of the length; scutellum impunctate; elytra almost as broad at the base as the prothorax, parallel to a very short distance of the apex where they are rounded, moderately plane, deeply punctate striate, the juxta-sutural stria extends from base to apex, and is divided by a broad, smooth interval from the other three dorsal striæ which only reach the rounding of the posterior part, under the fourth stria is a series of shallow punctures not much shorter than the stria itself, and the outer margin is deeply punctured all round; abdomen nearly smooth, sides of pectus deeply variolate punctate; anterior tibiæ sharply 6-dentate outwardly.

Length 12–13½ mm.; width 3¾–4 mm.

Hab. Mozambique (Beira).

I cannot find any difference between the Beira examples and those from Madagascar or Nossi Bé. *F. anthracinus* is not the same species as *F. sublævis*, which Kolbe records from Zanzibar Island.

FAMILY PASSALIDÆ.

This family, which has been separated by some authors from the *Lucanidæ*, is really more closely allied to the *Scarabæidæ* than the

latter. It includes insects, strikingly depressed, or only slightly convex on the upper side, long, parallel, usually black but occasionally brown and very shiny, met with under the bark of decaying or rotten trees that are lying on the ground. Lacordaire says when they fear capture they emit from the mouth and from beneath the elytra a colourless fluid which spreads all over them.

According to Sharp, the larvæ are very interesting, from the fact that they appear to have only four legs; this is not, however, the case, because the posterior pair are reduced "to a paw-like structure bearing in some cases several hard digits, the function of which is to scrape striated areas on the preceding pair of legs and so to produce sound." The anal opening of the larva is transverse with the upper part slit longitudinally, somewhat in the manner of the Scarabæidous larvæ. The perfect insect does not seem to possess sound-producing organs.

Ligula sharply tri-dentate, even conical in front; mentum very deeply cut out rectangularly for the reception of the ligula; maxillæ with the inner and upper lobe sharply dentate inwardly; labial palpi inserted laterally near the edge; labrum large, free; mandibles with several inner teeth and a large molar one at the base preceded by another movable, or seemingly so, immediately in front of it; antennæ with the terminal 3–6 joints lamellate, the lamellæ of the antennæ brought together by the curling up of the antenna, instead of being coadapted as in the *Scarabæidæ;* mesothorax with a strong peduncle; scutellum situated on the peduncle; elytra with ten furrows on each side.

Three species of *Passalidæ* are recorded from the South African area. I know one only, *Eumelosomus sansibaricus;* it is plainly a straggler, and the most southern place from which I know it to be recorded is Zululand.

Gen. EUMELOSOMUS, Kuw.,
Deutsch. Entom. Zeitschr., 1891, p. 190.

Mentum large, sub-concave; ligula carinate in the middle and sloping on each side, ending in a long, central spine, upper lobe of maxillæ ending in a falciform hook, inner lobe with an upper hook and a smaller one in the centre, and having in the middle and above the molar tooth two broad laminate, transverse, emarginate ones, the one above the molar has faint traces of a suture at the base; mandibles robust, arcuate, obtusely bifid at tip; head transverse, labrum scooped in the centre, epistoma with five porrect teeth, frontal part with a carinate triangle and two sharp tubercles near

the vertex, canthus of the large globular eyes reaching the centre; antennæ 10-jointed, the club is tri-jointed, but the three preceding joints are angular and not much developed; prothorax quadrate, longitudinally grooved in the centre, smooth but foveolate on the sides; elytra slightly broader at the base than the prothorax, but slightly ampliated laterally past the median part and covering the pygidium; abdomen much depressed; legs not very robust; anterior tibiæ 7-dentate outwardly; intermediate and posterior grooved longitudinally, the hind ones ending in two long spine-like processes outwardly.

Greatly resembling the well-known West African genus *Pentalobus*, but distinguished by the 3- instead of 5-jointed antennal club; the prosternum is plane, graduate for two-thirds of the length, then conically acuminate to the base of the coxæ and continued thence to the apex as a simple, not grooved, highly raised longitudinal ridge.

The genus includes only African species.

EUMELOSOMUS SANSIBARICUS, Har.,
Monatsb. Akad. Wissensch., 1880, p. 262.

Black, very shiny; labrum clothed with a long fulvous pubescence; clypeus provided in front with five sharp, equi-distant porrect teeth of equal length, in the centre of the frontal part is a raised triangle, beginning at the base of two of the porrect teeth and culminating in the centre of the head, the three angles of the triangle being distinctly toothed; on each side of the apical tooth but set further towards the vertex is a more or less distinctly toothed tubercle, the vertex is transversely depressed, and the whole surface is very roughly pitted; prothorax smooth on the greatest part of the disk but with deep, round, sub-variolose, irregularly disposed punctures forming also an irregular row along the anterior margin as far as a third of the whole width, the lateral ovate impression is hardly distinct; scutellum impunctate; elytra depressed with the intervals smooth, the four dorsal striæ are narrow and finely punctate and the intervals are broad, but they gradually deepen and broaden towards the apex, the other striæ become twice as broad as the very narrowed, sub-carinate intervals, and are divided by regular walls into symmetrically transverse foveæ; abdomen aciculate laterally, lower part of sides of metasternum roughly punctate; prosternum fimbriate; femora impunctate or with a few punctures; anterior tibiæ of ♂ with a long tooth at the inner part of the base.

Length 27–30 mm.; width 9–10 mm.

Hab. Zululand; Southern Rhodesia (Gazaland, Chirinda Forest).

Two other species of *Passalidæ* have been described from South Africa by Keuwert, Deutsch. Entom. Zeitschr., 1891. The description of both the genera and the species is so very brief that their identification is scarcely possible, and not having seen them I cannot give a more detailed description.

That these two species occur in the South African area requires confirmation.

GEN. TIBERIUS, Kuw. (Basilianus, *part.* Kaup.),
Deutsch. Entom. Zeitschr., 1891, p. 164.

"The left porrect process of the clypeus is scarcely broader or larger than the right, and extends straight out. Antennal club 5- or 6-jointed."

TIBERIUS CAFFER, Kuw.,
Loc. cit., p. 164.

"Antennal club consisting of six short joints diminishing gradually towards the pedicel. The side furrows and intervals similar to those found in the genus *Cancrus*.

Length 36 mm."

GEN. NELEUS, Kaup.,
Coleopt., Heft v., 1869, p. 30.

"Clypeus 4-toothed, the teeth set at about the same distance from each other. Forehead declivous, broad but short, and strewn with deep punctures, the border arcuate towards the clypeal horn. Body not hairy. Cephalic horn a little free, or scarcely so."

NELEUS TRANSVAALENSIS, Kuw.,
Deutsch. Entomol. Zeitschr., 1891, p. 186.

"Under tooth of the jaws consisting of a small point, becoming obliquely smaller towards the front and rounded off. Greatly resembling *M. punctiger*, Serv.

Length 33 mm."

Family SCARABÆIDÆ.

Sub-Family COPRINÆ.

Tribe COPRINI.

Gen. SCARABÆUS.

Scarabæus intricatus, Fabr. Cat. i., 33.

I erroneously placed in synonymy with the above-mentioned species *S. cicatricosus*, Boh. (The name having been used previously, was changed into *S. bohemani* by Harold. Catal. Coleopt., iv., p. 1.)

On closer examination I find that the two species are distinct, that their habitat is also different, and also that the genitalia of the ♂ are not alike.

But there is a third species which is very closely allied to these two, and the three may be defined as follows :—

A. Hind femora simple underneath.

Head with the villose hairs in the frontal part black ; punctures on prothorax round, deep, separated by a smooth interval equal to their own diameter in the posterior part of the disk only, in the centre is a more or less distinct longitudinal smooth space, and one on each side at the base somewhat in the shape of a broad arrow ; striæ of elytra finely but distinctly punctate, punctures elongated, opaque with quadrate or transverse shiny bosses nearly equal in size on the first three dorsal intervals with the opaque part, but narrower and more transverse on the other intervals ; intermediate and hind legs with a non-interrupted upper carina and with no transverse teeth outwardly or at apex .. .. *intricatus.*

Head with the villose hairs in the frontal part flavescent ; punctures of the prothorax broader, deeper, less numerous, and therefore less closely set, in the central part and on each side of it are irregular smooth areas ; the striæ of the elytra are not punctate, or at least not distinctly so, the intervals are not opaque, the bosses are separated by a round foveate puncture not reaching the two sides of the interstices ; the intermediate and posterior tibiæ have the chevron outer teeth and also the outer apical part strongly developed, and densely penicillate with villose hairs.. .. .. .. *bohemani.*

B. Hind femora with two teeth underneath.

This species combines the sculpture of the head and prothorax of *S. bohemani* and the elytral one of *S. intricatus*. The villose hairs of the head are flavescent, the punctures on the prothorax are rounder, deeper, and being slightly more closely set the smooth areas are very little distinct ; in the elytra the striæ have the long punctures of *S. intricatus*, the intervals are opaque, and the shiny

bosses are equally long and parallel; the pygidium and the sides of the metasternum are much more roughly punctate than in either of the two above-mentioned species; intermediate and hind tibiæ very sharply dentate outwardly en chevron, especially the latter, and sharply acuminate at apex; hind femora well developed and having underneath near the trochanter a vertical short but very distinct tooth, and towards the middle a broadly triangular very conspicuous one; the anterior margin of the anterior femora is plainly crenulate. In one of my examples the antennal club is flavescent. Length 9–10½ mm.; width 5½–7 mm. .. .. *inquisitus*, n. spec.

The habitat is not the same. Thus *S. intricatus* occurs in the neighbourhood of Cape Town, and at no great distance from what is termed here "strand veld," whereas *S. bohemani* is spread all over South Africa, penetrating into the neighbourhood of Cape Town as near as Worcester; *S. inquisitus* is recorded from the Transvaal (Potchefstroom, Plat River), Cape Colony (Vryburg).

Scarabæus pabulator, n. spec.

Black, shiny; antennæ flavescent; clypeus very sharply six-dentate, the teeth of equal length and well reflexed, in the centre of the frontal part is a fairly distinct longitudinal ridge, and the pubescence of the head and clypeus is fulvous; prothorax of the normal shape, but not having the appearance of being very much ampliated owing to the elytra being somewhat parallel, covered all over with contiguous fossulate punctures or fossæ separated from each other by a narrow smooth interval, the whole forming a somewhat regular reticulation; there is a slightly raised smooth line obliterated in the centre of the disk, and the outer margins are strongly serrate; the elytra are striate and the striæ punctulate, the intervals are tectiform but roundly impressed at equal distance, the impressions being in the shape of an irregular fovea impinging more on one side towards the stria than on the other, thus forming irregular bosses sometimes connected in the dorsal part so as to form wavy ridges, and more shiny than the impressions; pygidium deeply and somewhat irregularly punctate; metasternal process plainly aculeate, sides closely punctate and moderately pubescent; anterior tibiæ with four sharp outer teeth, sharply serrulate inwardly, serrate outwardly and fringed with long fulvescent villous hairs; hind tibiæ without any chevron teeth outwardly and fringed with black hairs.

Length 13½ mm.; width 8 mm.

This species, which should follow in the systematic arrangement *S. intricatus* and its allies, seems to be an intermediate form between them and the group to which *S. parvulus*, *lucidulus*, and *anderseni*

belong. It is more parallel than *S. intricatus*, and nearly as plane as *lucidulus*, but it is easily distinguished from both by the deep reticulation of the prothorax.

Hab. Cape Colony (Calvinia). ♀.

SCARABÆUS PROBOSCIDEUS, Guér.-Ménev.,
Cuvier's Iconogr., Règn. Anim. Insects, 1827–44, p. 73.

S. rostratus, Pér., Catal. i., p. 51.
S. modestus, Pér., nec. Bohem., Catal. i., p. 51.

The habitat of this species is given in the Munich Catalogue as Senegal, while Guérin-Méneville stated that it came from the Cape of Good Hope. Not having at the time Guérin's work at my disposal, and also misled by the wrong locality assigned to it in the Catalogue, I described this species anew under the name of *S. rostratus*, but having received an example alleged to have been compared with Boheman's type of *S. modestus*, I assumed that it was the same species as that of this author, which it plainly is not.

The species, somewhat briefly described by Guérin-Méneville, possess a character which is peculiar to *S. modestus*, *i.e.*, "a straight (? vertical) horn, bifid at the tip, and placed under the mentum." The other South African species having a similar characteristic is *S. rixosus*, Péring., but the tooth of the mentum is conical, not bifid, and both species have a conspicuous elongated tubercle on the frontal part of the head, which seems to have escaped the attention of Guérin-Méneville, for there is no reference to it in his description.

Reiche, in Dejean's Catalogue, 3rd edit., 1837, mentions also this species as *Ateuchus proboscideus*, Reiche, and gives its habitat as "Cap. Bon. Sp.," but as Méneville in his description mentions that the insect was communicated to him by Reiche, it follows that if Reiche had mistaken the locality, the same mistake would be made by Méneville, and no corroboration of the habitat could be arrived at. But I find that "*Ateuchus proboscideus*, Reiche," figures in the printed price-list of the insects collected by Drège in South Africa, dated 1841 (Preiz-Verzeichniss den Insecten von C. Fr. Drège in Süd-Afrika gesammelt., &c., Sept., 1841), and is priced higher than any other South African species. This, I think, corroborates the original locality.

Mr. Alluaud described (Bull. Mus. d'Hist. Natur. Paris, No. 4, 1902, p. 251) a new species from Madagascar (*Scarabæus sevoistra*) which has also a vertical tooth on the mentum.

Scarabæus sennaarensis, Cast.,

Hist. Nat. d. Ins., ii., p. 66.

"This species resembles much *S. puncticollis*, Latr., but it is easily distinguished by being more shiny black, by the fine and very closely set punctuation of the prothorax, the very sharp angles of the clypeus, the yellow antennal club; the sides of the prothorax and the legs are set with long rufous hairs; the anterior tibiæ have four very strong and perpendicular teeth outwardly; the pedicel of the antennæ are entirely brownish red.

Length 8 lin.; width $4\frac{2}{3}$ lin.

Hab. Sennaar."

Mr. Marshall informs me that this species has been captured by Burchell during his South African journey.

Sub-Gen. SEBASTEOS, Westw., Cat. i., p. 57.

Sebasteos westwoodi, Har. Coleopt., Heft v., 1869, p. 95.

This species is not synonymous with *S. galenus*, Westw., as I thought. It most closely resembles the latter in general appearance, but the prothorax, instead of bearing equally distant punctures, bears equally distant granules covering the whole of the discoidal part except a sub-arcuate space on each side of the base; in the median part there is a narrow, median, longitudinal line which becomes impressed from the centre to the basal part, where it culminates into a sharp carina.

I found one example of this species among a small number of *S. galenus*, from the same locality.

Length (♀) 32 mm.; width 19 mm.

Hab. Transvaal (Zoutpansberg).

Gen. PACHYSOMA, Cat. i., p. 76.

Pachysoma rotundigena, Felsch.,

Deutsch. Entom. Zeitschr., 1907, p. 273.

"Black; head from the front to the back equally arched, closely plicate longitudinally, the anterior margin with four teeth, the two central ones considerably longer than the other two, genæ rounded, prominent but distinguishable from the head in front only, the border is finely crenated, the surface finely granulated; the prothorax is widest behind the middle, rounded there with the sides entire, the whole lateral margin is toothed, the hind angles sharp,

the whole disk not over-thickly beset with small punctures, between them stand numerous large cicatricose ones; elytra transverse, with scarcely any striation or puncture. Anterior tibiæ somewhat curved in the anterior third part of the length, which bears outwardly four teeth and is crenated above these, the spur is very sharp and there is a little tooth on the outer margin; middle tibiæ straight, small, the spurs very long, spatulate, the tarsi ending in small claws and moderately long, but with a tolerably thick coating of hairs; hind tibiæ somewhat bent, and somewhat carinate outwardly before the apex, tarsi almost as long as the tibiæ, the first joint as long as the three following taken together; claws very slender, slightly bent, as long as the two last tarsal joints taken together.

Remarkable in this species is the dark brown hairiness of the fore tibiæ, of the basal half of the prothoracic border, and especially of the upper margin of the hind legs and their tarsi, where they reach a length of 6 millimeters.

Length 26 mm.

Hab. Sinclair (German South-West Africa.)"

PACHYSOMA BENNIGSENI, Felsch.,
Deutsch. Entom. Zeitschr., 1907, p. 274.

"Black. Head shaped and sculptured like in *P. rotundigena*, but with detached little granules on the vertex. Prothorax strongly transverse, its lateral margin strongly rounded, widest behind the middle, anterior margins four times very slightly sinuate, the hind ones slightly rounded, anterior angles sharp, posterior rounded, the outer border sharply crenulated, the whole disc densely wrinkled and granulated, intermixed are larger granules which become more numerous on the back part, before the posterior margin is a row of larger, longish punctures looking as if they were crumpled; elytra broadly cordiform, furrows marked with a median row of granules, intervals somewhat convex, strongly wrinkled and having in the middle a row of granules which are, however, indistinct in the juxta-sutural interval. Pygidium broadly triangular, slightly convex, and with isolated well-defined granules. Legs as in *P. rotundigena*, but without the two teeth in the inner part of the fore tibiæ, the spur is less sharp, and without an external tooth; the claws of the hind tarsi and also the villosity are less conspicuous.

Length 20 mm.

Hab. Orange River."

Gen. GYMNOPLEURUS, Cat. i., p. 64.

Gymnopleurus ænescens, Wied.,
Germar's Magaz. Entom., iv., 1821, p. 128.

G. cupreus, Fähr., Cat. i., p. 74.

I am indebted for this rectification to Mr. G. A. K. Marshall. I must, however, point out that all the South African species described by Wiedeman were from the neighbourhood of Cape Town, or from the adjoining districts, where *G. cupreus*, Fähr., does certainly not occur.

Gymnopleurus humanus, McLeay,
Hor. Entomol., i., 2, p. 514.

G. sericatus, Erichs., Cat. i., p. 74.
G. péringueyi, Shipp., Entom. Month. Mag.
G. modestus, Pér., Cat. i., p. 74.

Gen. EPIRINUS, Reich., Cat. i., p. 89.

Epirinus scrobiculatus, Har.,
Mitth. Munch. Entomol., Vereins, 1880, p. 152.

"Black, opaque, head and prothorax very densely rugulose, the latter with a longitudinal median smooth fine line; elytra slightly striate, intervals plane, irregularly granulate punctate, the alternate ones being a little more densely granular than the others.

Strongly separated from *E. æneus* by the plainly black colour, the clypeus which is more broadly incised and more sharply toothed, as well as by the fine but dense rugosity of the head and thorax. I have this species also under the name of *E. scrobiculatus*, Gory, *in litt.*

Length 7 mm.

Hab. Cap. Bon. Sp."

Gen. SISYPHUS, Gor., Cat. i., p. 98.

Sisyphus transvaalensis, n. sp.

Male: Shape and facies of *S. atratus*, Kl. (Cat. i., 104) and of *S. quadricollis* (loc. cit., p. 103), but as thickly clothed with squamose hairs as *S. goryi*, and belonging also to the same division (loc. cit., p. 101). The clypeus, including the genæ, is sharply tri-dentate on each side, resembling in that respect that of *S. atratus*, but the anterior tibiæ are not mucronate underneath; the inter-

mediate femora and tibiæ are simple; the posterior trochanters do not in the least project beyond the line of the femur; the latter has underneath and at about the median part a short, carinate, transverse projection instead of a triangular tooth as in *S. muricatus*, Oliv., and the hind tibiæ are normally curved and very closely serrate inwardly. The genital armature is not unlike the shape of that of *S. atratus*, but is different nevertheless.

Length 9–10 mm.; width 5–6 mm.

Hab. Transvaal (Zoutpansberg).

Tribe COPRINI.

Gen. CHEIRONITIS, Lansb.

Cheironitis stuhlmanni, Kolb.,

Die Käf., D. Ö. Afrikas, 1897, p. 147, pl. 1, fig. 9.

Male: Bronze-green, very little shiny on the upper side, but very shiny underneath; the tibiæ are dark green; clypeus semicircular, strongly shagreened, clypeal carina very short, arcuate, vertex and genæ granular, frontal carina slightly interrupted on each side of a small, little developed median tubercle, vertex carinate laterally and behind; prothorax depressed, one-fourth wider than long, faintly bi-impressed longitudinally in the centre of the dorsal part and covered with equi-distant, slightly asperous punctures turning to scabrose in the anterior part of the sides; elytra narrower than the prothorax at its widest part, but not narrower at the base than the base of the latter, strongly sinuate below the humeral part, slightly narrower at apex than at base, depressed, but with the sutural part raised and the fifth interval sub-tectiform, finely striate and with the eighth or outer stria replaced by a very sharp carina reaching from base to apex, intervals closely but not deeply punctulate; pygidium closely punctulate and having a slight, median longitudinal raised line on the upper part; anterior tibiæ long, straight from the base to half the length, and somewhat slender, thence they curve inwards and are dilated and strongly and sharply carinate underneath, this carinate part is strongly bi-dentate at the base, and there are two smaller teeth at the inward part of the bend of the tibiæ which is strongly tri-dentate outwardly and ends in a long mucro; the strongly developed femora have a long, incurved, truncate tooth in the anterior face and a smaller one on the anterior margin near the apex, the prosternal process is small, truncate and slightly scooped at tip; intermediate coxæ very broadly laminate with the inner part adjoining the trochanter scooped into a deep lobate, almost auri-

culate process, the tibiæ arcuate and broadly dilated inwardly at apex; hind femora greatly developed, compressed with the upper margin laminate and almost truncate outwardly, and having underneath an elongate triangular, shark-like tooth followed by a moderately deep apical notch, the trochanters are simple; hind tibiæ slender at the base as far as the tooth of the femora and broadly dilated thence into a sub-rectangular laminate process sharply angular in the inner part of its base.

Length 21 mm.; width 12 mm.

Hab. Southern Rhodesia (Lebakwe).

This species was originally described from German East Africa.

CHEIRONITIS DAMARENSIS, Felsch.,
Deutsch. Entom. Zeitschr., 1907, p. 286.

"In shape and colouration very like *C. osiridis*, Reich., but it is broader and less attenuated behind. In both these species the head is similarly shaped and similarly sculptured, but in *C. damarensis* the clypeal ridge is stronger, almost three times as long, and erected more forwards, the tubercle and the frontal ledge are stronger. The prothorax is of the same shape in both species, but in *Osiridis* the rasp-like punctuation is somewhat more pronounced, while in *damarensis* the punctures of the base are more strongly stamped; the elytra in *damarensis* are almost parallel, the surface is beset with extremely fine, widely remote asperous punctures, and they are opaque with a silky sheen, the suture, the callosity of the fourth and fifth intervals, and the boss of the shoulders are shiny. Pygidium of silky smoothness with a few fine punctures, somewhat convex up to the apex, and with a somewhat fine keel in the centre.

Length 14–16 mm.

Male: Head somewhat broadly developed and with two broad, blunt teeth. Anterior femora with a very conspicuous fork on the fore margin of the under side which has several notches, and a tooth at the base, the anterior has at the apex a small stumpy tooth; fore tibiæ long, with four teeth, the curved part long, sharply bent inwards, very hairy, the tibiæ somewhat broadening inwards from the 1–3 tooth and slightly notched on the front part, the under side with a strong tooth in the middle, between this and the base is a short ridge which is raised in the middle and notched; intermediate legs simple; in the hind legs the trochanter is conspicuous, the front half being grooved so as to make its end look bluntly bifid; femora broadening markedly, slightly rounded in front of the basal half, then broadening into a lamina with the whole margin crenulate, on

the back of the third part of the length and parallel with the edge is a wavy ridge, and on the posterior margin, in the apical half, a well-developed, truncate tooth. Prosternal process broad, rounded at tip, the corners bent outwards, the back border granulose and hairy. Metasternum not thickened but very coarsely granular.

Female: Clypeus blunt, not acuminate; legs normal; metasternum tolerably symmetrical, not so coarsely granular."

Hab. Kubub; German South-West Africa.

GEN. ONTHOPHAGUS, Latr., Cat. i., p. 168.

Since the publication of my Catalogue of the Scarabæidæ (April, 1901), M. H. d'Orbigny has published a considerable number of African species, among which are included 5 South African species of the genus *Caccobius*, 58 of the genus *Onthophagus*, 3 of the sub-genus *Proagoderus*, and 2 of the genus *Phalops*, exclusive of several species which have been sunk in synonymy. With some additions of mine the actual number of the genera and sub-genera above mentioned, with the genus *Diastellopalpus* thrown in, is now 213 instead of 112, as given in my Catalogue. Many, if not most of the additions, are from the confines of the South African limit, and I believe that many more Central African species will eventually be found to occur also in South Africa. It is somewhat puzzling to find that certain specimens roam nearly all over Africa, south of the Sahara, while others are limited, as far as is now known, to a comparatively small or very limited area. Several, if not many, Senegal and Abyssinian forms have their counterparts further south; these differ mostly in the sculpture of the prothorax especially, but also of the head and elytra; and the differences can be ascertained only by comparison. This difference between the greater and smaller development is also very great in many kinds, exactly in the same manner as in the genera *Copris*, *Catharsius*, &c., adding thus to the great difficulties that beset the identification of species.

I have not, unfortunately, been able to procure or examine a comparatively large number of d'Orbigny's new or lately described South African species, and it is thus impossible for me to even make an attempt at giving a key of the South African kinds, but this gentleman has very courteously placed at my disposal a list of the kinds known to him to occur in South Africa, and arranged according to the affinities they bear to each other. He has also revised my grouping of the species with the table of the six divisions which he has proposed (Ann. Soc. Ent. Fr., lxxi., 1902, p. 19) for the reception of the host of African species—a host, the number of which seems to increase yearly.

These divisions are as follows :—

ONTHOPHAGUS, *sensu stricto.*

First Division.

1. (6) Prothorax with the punctuation simple, often umbilicate, but neither raspy nor granulose even in front or on the sides: occasionally the space between the punctures is more or less rugose. Basal part of pygidium with a transverse ridge connecting with that of the abdominal sides.

2. (3) Intervals between the elytral striæ plainly granulose or having punctures disposed in at least one or two series, or irregularly; in some black species the discoidal part of elytra has only some very sparse but very distinct granules, and the sides are plainly granulate or punctured. Prothorax seldom (jamais en majeure partie) smooth and with an agglomeration of larger punctures on each side of the disk.

3. *Base of prothorax without a plain fold, at least laterally.. *First Division.*
4. Base of prothorax with a plain fold, along the whole length.
Second Division.

5. (2) Intervals between the elytral striæ smooth, except for a few hardly distinct punctures or granules, or an extremely fine aciculation. Prothorax oftener than not with the greatest area smooth and with an agglomeration of punctures on each side of the disk, sometimes with a moderately fine and not closely-set punctuation, at least in the centre, and with a wider agglomeration of punctures on each side of the disk; seldom is the punctuation almost uniform. Elytra testaceous with or without black spots, or black with a testaceous patch. Size very small, or somewhat small .. .. *Third Division.*

6. (1) Prothorax granulate or with raspy punctures at least in front or on the sides, the anterior edge of the punctures more raised than the posterior, and more or less asperous.

7. (8) Pygidium without transverse ridge along the base, the whole surface covered with long hairs, or only the basal part which, then, bears a long fringe of hairs where the transverse ridge should have been; base of prothorax with a fold; elytra most often testaceous, with or without spots, seldom black or brown .. .. *Fourth Division.*

8. (7) Pygidium having at the base a transverse carina which continues that of the abdominal sides.

9. (10) Base of prothorax without a distinct fold, at least on the sides.
Fifth Division.

10. (9) Base of prothorax with a very plain fold all along the width.
Sixth Division.

In addition to the genus *Onthophagus*, in the strict sense, d'Orbigny retains Lansberge genus *Proagoderus* (Not. Leyd. Mus., v., 1883, p. 14), but only as a sub-genus.

* This character has to be ignored for certain species.

In *Proagoderus*, the prothorax is produced in the middle of the base in a strongly pronounced, often laminate angle; the clypeus is never bi-dentate, the elytra never testaceous, and the basal joint of the labial palps is not dilated; this last character differentiates *Proagoderus* from *Diastellopalpus*.

LIST OF THE SOUTH AFRICAN SPECIES OF *ONTHOPHAGUS*, AND ALLIED GENERA.

teste D'ORBIGNY.

GEN. **CACCOBIUS,** Thoms.

SUBG. CACCONEMUS, Jekel.

castaneus, Klug.

SUBG. CACCOPHILUS, Jekel.

ferrugineus, Fähr.
nigritulus, Klug.
inops, Péring.
  mixtus, d'Orb.
discrepans, Péring.
anomalus, Klug.
histerinus, Fähr.
cavatus, *n. sp.*, d'Orb.
inconspicuus, Fähr.
fuliginosus, Roth.
obtusus, Fähr.
  mastrucatus, Péring.
viridicollis, Fähr.
convexifrons, Raffr.
  pudens, Péring.
postlutatus, d'Orb.
seminulum, Klug.
schœdlei, d'Orb.

SUBG. DIAGLYPTUS, d'Orb.

multifidus, *n. sp.*, d'Orb.

GEN. **MILICHUS,** Péring.

rhodesianus, Péring.
apicalis, Fähr.

GEN. **ONTHOPHAGUS,** Latr.

SUBG. ONTHOPHAGUS, *s. str.*

First Division.

importunus, Péring.
modestus, Har.
rufovirens, d'Orb.
simoni, d'Orb.
granulum, d'Orb.
  granum || d'Orb.
dedecor, Wall.
  nigrescens, d'Orb.
æruginosus, Roth.
æquepubens, d'Orb.
biconifer, d'Orb.
amplicornis, *n. sp.*, d'Orb.
quadrimaculatus, Raffr.
cinctipennis, Qued.

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nudus, *n. sp.*, d'Orb.
coptorhinodes, Péring.
insulsus, Péring.
marshalli, *n. sp.*, d'Orb.
binodis, Thunb.
  columella, Fähr.
discretus, Péring.
lacustris, Har.
? serenus, Péring.
emeritus, Péring.
beiranus, Péring.
auriculatus, Klug.
bovinus, Péring.
  lobigena, d'Orb.

Second Division.

plebejus, Klug.
flavimargo, d'Orb.
limbibasis, d'Orb.
ambiguus, Péring.

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vinctus, Er.
interstitialis, Făhr.
consobrinus, Péring.
carbonarius, Klug.
var. *vicarius*, Péring.
subplanus, d'Orb.
ventrosus, d'Orb.

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minutulus, Har.
illotus, Péring.
? pusio, Făhr.
pauxillus, d'Orb.
pullus, Roth.

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ineptus, Har.
fungicola, *n. sp.*, d'Orb.
nævuliger, *n. sp.*, d'Orb.

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monodon, Făhr.
setosus, Făhr.
cretus, Péring.
declivicollis, d'Orb.
cineraceus, d'Orb.
hyæna, Făbr.
lugens, Făhr.
minutus, Hausm.

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variolosus, d'Orb.
naso, Fahr.
deterrens, Péring.
apiciosus, d'Orb.
confertus, Pér.

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lævatus, d'Orb.
placens, Péring.

Third Division.

virescens, Har.
suturalis, Péring.
var. *peringueyi*, Shipp.
pallidipennis, Făhr.
politissimus, n. sp., d'Orb.
rasipennis, *n. sp.*, d'Orb.
pallipennis (‡ Făhr.), d'Orb.
semiflavus, Bohem.
albipennis, Péring.
flavolimbatus, Klug.
breviculus, d'Orb.
nanus, Har.
decipiens, Har.

Fourth Division.

verticalis, Făhr.
producticollis, *n. sp.*, d'Orb.
decedens, Péring.
quadrinodosus, Făhr.
tricorniger, Bohem.
ursinus, d'Orb.

Fifth Division.

graphicus, Wall.

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macrothorax, d'Orb.
teitanicus, d'Orb.
sansibaricus, Har.
perniciosus, Péring.
trinodosus, Făhr.
amoenus, *n. sp.*, d'Orb.
parumnotatus, Fahr.
axillaris, Bohem.
criniger, d'Orb.
crinitus || d'Orb.
obtusicornis, Făhr.
mitativus, Péring.
lutulentus, Har.
pilosus, Făhr.
pellax, Péring.
indigus, Péring
senescens, *nom. nov.*, Péring.
seniculus || Péring.
asimilis, Péring.
bituber, d'Orb.
herus, Péring.
emigraniger, d'Orb.

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nigropubens, n. sp., d'Orb.
giraffa, Hausm.
vigens, Péring.
cribripennis, d'Orb.
obtutus, Péring.
ditus, Péring.

Sixth Division.

dispar, Péring.
asperrimus, d'Orb.
incertus || Péring.
dubius, d'Orb.
prætortus, Péring.

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cupricollis, Péring.
scapularis, d'Orb.
impurus, Har.
discolor, Klug.
bicavifrons, d'Orb.
croesulus, Bates.

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pinguis, Gerst.
laminidorsis, d'Orb.
ebenicolor, d'Orb.
binodosus, *n. sp.*, d'Orb.
rhynchophorus, Péring.

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probus, Péring.
aspericeps, n. sp., d'Orb.
convexus, n. sp., d'Orb.
sutiliceps, d'Orb.

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coronatus, d'Orb.
fimetarius, Roth.
piceus, Fähr.
asperulus, d'Orb.
cyaneoniger, d'Orb.

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insignis, Péring.
guillemei, d'Orb.

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albipodex, d'Orb.
leucopygus, Har.
quadraticeps, Har.
caffrarius, d'Orb.
impressicollis, Bohem.
stenocerus, Har.
præstans, Péring.
æquatus, Péring.
pugionatus, Fähr.
latefulvus, d'Orb.
inermicollis, n. sp., d'Orb.
ebenus, Péring.
quadricallosus, d'Orb.
granulifer, Har.
burchelli, n. sp., d'Orb.

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gibber, d'Orb.

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bubalus, Har.
gazella, Fabr.

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cameloides, d'Orb.
junodi, d'Orb.
merus, Péring.
rubens, d'Orb.
exiguus || Péring.
signatus, Fähr.
stellio, Er.
variegatus, Fabr.
venustulus, Er.
sugillatus, Klug.
mactatus, Klug.
talpa, Fahr.
? *guttatus*, Bohem
suffusus, Klug.
crucifer, Klug.
fritschi, d'Orb.
temporalis, d'Orb.
lamnifer, d'Orb.
fugitivus, Péring.
immundus, Bohem.
versutus, Péring.
ocellatus, d'Orb.

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depressus, Har.
acutus, n. sp., d'Orb.

SUBG. PHALOPS, Er.

boschas, Klug.
ardea, Klug.
prasinus, Er.
adspersipennis, Bohem.

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euplynes, Bates.
rufosignatus, Lansb.
dregei, Har.
congenitus, Péring.
pyroides, *n. sp.*, d'Orb.
Wittei, Har.
boschimanus, Péring.
flavocinctus, Klug.
densegranosus, *n. sp.*, d'Orb.
smaragdinus, Har.
tarsatus, Péring.

SUBG. PROAGODERUS, Lansb.

rangifer, Klug.
gibbiramus, d'Orb
furcifer, Bohem.
plato, Bates.

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pyramidalis, Klug.
panoplus, Bates.
nasidens, d'Orb.
rectefurcatus, Fairm.

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subextensus, Kolbe.
quadrituber, n. sp., d'Orb.

tersidorsis, d'Orb.
lanista, Casteln.
——
loricatus, Klug.
——
alcyon, Klug.
——
bicallosus, Klug.
——
unidens, Qued.
suspectus Péring.,
sapphirinus, Fähr.
aureiceps, d'Orb.
dives, Har.
optivus, Péring.
aciculatus, Fähr.
——
gemmatus, Péring.
iricolor, d'Orb.
marginidens, d'Orb.
brucei, Reiche.

Subg. DIASTELLOPALPUS, Lansb.

quinquedens, Bates.
ponderosus, Péring.
orbignyi, Péring.

Gen. CACCOBIUS, E. G. Thoms., Cat. i., p. 275.

Cacconemus ; Caccophilus ; Diaglyptus.

The main, if not only character, distinguishing *Caccobius, sens. lat.*, from *Onthophagus*, *Phalops*, and other very closely allied genera, is that in the former the anterior tibiæ are transversely truncate at tip, whereas in the latter they are obliquely truncate inwardly.

But even this is not the case in *Caccobius anomalus*, Kl., in which the ♂ has laminate anterior tibiæ transversely truncate, whereas in the ♀ these limbs are shaped as in *Onthophagus*, &c.

Nor can it be said that the convex shape of the frontal part is a character belonging exclusively to *Caccobius*, because in several species the armature is that of certain species of *Onthophagus* (*C. obtusus*, &c.). On the other hand, certain forms have a facies of their own (*viridicollis*, *schædlei*, *postlutatus*).

The restriction of the eighteen South African species into this genus, or sub-genera, makes, however, the identification of the very numerous kinds of South African *Onthophagus* (154 spp.) slightly easier.

In *Caccobius*, Jek., the under part of the prothorax bears on each side a supplementary carina. *Sensu stricto* only one species, a palæarctic one, belongs to this section.

In *Cacconemus*, Jek., the supplementary carina is wanting as in *Onthophagus*, and the upper part of the body is glabrous. One South African species is included in this sub-genus.

In *Caccophilus*, Thoms., this carina is also wanting, but the upper part of the body is more or less pubescent.

In *Diaglyptus*, d'Orbign., the metasternum has in front a transversely arcuate line continued behind and rounding the intermediate

coxæ; elytra with a broad lateral sulcus, upper part o the body with scattered long setæ. In this sub-genus is included one South African species.

SUB-GEN. CACCONEMUS, Jekel,
Rev. and Mag. d. Zool., 1872, p. 418.

C. castaneus, Klug, Catal. i., p. 262.

SUB-GEN. CACCOPHILUS, Jekel,
Loc. cit., p. 410.
CACCOBIUS FERRUGINEUS, Fähr., Catal. i., p. 247.

d'Orbigny records this species from Somaliland, German East Africa, Central Africa, Congo, Gaboon, Dahomey. It is a very rare species in South Africa.

CACCOBIUS NIGRITULUS, Klug, Catal. i., p. 261.

C. litigiosus, Pér., loc. cit., p. 242.

Black, with a faint metallic tinge, sub-opaque or very little shiny, antennæ and legs rufescent brown; facies sub-parallel; clypeus arcuate but bluntly sub-triangular in the anterior part, not emarginate there, no incision at the base of the genæ which do not project; head and clypeus simple but with a slightly tubercular prominence in the anterior frontal part; the surface is moderately closely aciculate punctate and glabrous; prothorax longer than broad, very little ampliate laterally, slightly attenuate but not sinuate towards the base the angles of which are very obtuse but not rounded, base not distinctly marginate; prothorax simple, sloping behind, slightly sulcate longitudinally for a short distance from the base, and covered all over with closely-set, elongated, aciculate non-setigerous punctures; elytra not broader than the median part of the prothorax, striate, the striæ very narrow, not distinctly geminate nor punctulate, intervals plane, the dorsal ones equal in width and all with very fine, nearly obliterated aciculate punctures disposed in two somewhat irregular series; pygidium glabrous, aciculate punctate; under side glabrous, aciculate punctate; groove of the metasternum shallow, obliterated at both ends.

Length 4–4¾ mm.; width 2¾–3 mm.

Hab. Mozambique (Rikatla).

CACCOBIUS INOPS, Pér., Cat. i., p. 240.

C. mixtus, d'Orb., Ann. Soc. Ent. Fr., 1905, p. 384.

Caccobius discrepans, Pér., Cat. i., p. 242.

Caccobius anomalus, Klug, Cat. i., p. 276.

Caccobius histerinus, Fähr., Cat. i., p. 276.

d'Orbigny records this species from Natal.

Caccobius cavatus, n. sp.*

Very small, head and prothorax often with a slight bronze sheen, upper side clothed with a moderately short pubescence. Epistoma very narrowly scooped out; frontal part with an arcuate carina, vertex (♂) with two large acute teeth and a deep excavation between these teeth; ♀ with only two very weak calluses and a slight depression. Prothorax with the punctuation simple and consisting of moderately large and deep punctures and of smaller and very superficial ones, the sides are not sinuate near the posterior angles; the punctuation of the intervals is simple, moderately large, and little closely set.

Length $2\frac{1}{5}$–$2\frac{4}{5}$ mm.

Hab. Southern Rhodesia (Salisbury).

H. d'Orbigny.

Caccobius (Diaglyptus) multifidus, n. sp.

Very small, black, upper side with long, black, erect and very remote setæ. Epistoma divided into five small teeth which are about equally distant from each other, the head is simple and covered with an extremely closely-set punctuation; prothorax covered in a uniform manner with a simple, somewhat fine, deep and very closely-set punctuation; the sides are not sinuated near the posterior angles, and the base has no fold. Intervals with a simple, close and deep punctuation.

Length $2\frac{1}{5}$–$2\frac{1}{2}$ mm.

Hab. Cape Colony.

H. d'Orbigny.

Caccobius inconspicuus, Fähr., Cat. i., p. 234, d'Orbign., Ann. Soc. Ent. Fr., 1902, p. 4.

My description of this species made partly from a mutilated example (Fahræus' type) and partly from his diagnosis can be

* d'Orbigny's descriptions of new species will be given in full in the *Annales de la Société Entomologique de France* for 1908.

completed as follows: Clypeus arcuately rounded and with the anterior margin entire, head somewhat roughly punctured on the clypeus, sides and vertex, but with the median frontal part finely punctate and bulging without being tuberculate; near the vertex and above the eyes is a short, median, transverse ridge, and the whole head is densely pubescent, the pubescence is short, erect, and sub-flavescent; prothorax simple, with the base weakly marginate, covered with equi-distant, simple punctures all setigerous and separated by an interval equal to their own diameter; pygidium covered with fine umbilicate punctures.

M. H. d'Orbigny separates *C. inconspicuus*, Fähr., from *C. fuliginosus*, Roth., from Abyssinia, with which it was united by Harold. As it is now included in the genus *Caccobius*, Fahræus' specific name is no longer in synonymy, and must be retained.

Hab. Natal (Durban, Zululand).

CACCOBIUS FULIGINOSUS, Roth.,
Wiegm. Arch. f. Naturg., xvii., i., p. 127.

This species differs from *C. inconspicuus* in bearing a slightly more sparse pubescence; the prothorax has deeper and broader punctures, some of them somewhat umbilicate; in the anterior part there is a minute longitudinal carina wanting in *C. inconspicuus;* the head is more scrobiculate in the centre, the frontal carina is similar, but there is no trace of a ridge on the vertex, and the pygidium bears larger umbilicate punctures.

Length $3\frac{4}{5}$ mm.; width $2\frac{1}{2}$ mm.

Hab. Natal (Durban).

CACCOBIUS OBTUSUS, Fähr., ♀, Catal. i., p. 221.

C. mastrucatus, Pér., ♂, Cat. i., p. 191.

M. H. d'Orbigny, to whom I sent, at his request, my examples of the two sexes of this species, pronounce the ♀ to be that of *C. fuliginosus*, although the two were taken together. The ♂ is less densely pubescent both on the prothorax and on the elytra, and the punctures on the former part are broader, deeper, and umbilicate. Moreover, the minor development of the ♂ has, like the ♀, a minute longitudinal carina on the prothorax.

CACCOBIUS VIRIDICOLLIS, Fähr., Cat. i., p. 193.

According to d'Orbigny (Ann. Soc. Ent. Fr., 1902, p. 9), I have mistaken two species under that name, *i.e.*, *O. brevicollis*, Fähr., and

C. viridicollis, Fähr., the former being an *Onthophagus*, the other a *Caccobius*. My description must therefore be amended.

Type. Bronze, with the head and prothorax bright green, the elytra testaceous red, with the suture green; the antennal club black, and the legs reddish. Clypeus narrowed in front, deeply scooped there, each angle of the incision triangularly produced, genæ projecting; head simple, sparingly punctate, the punctures bearing a rigid flavescent seta; prothorax with a fulvescent macule near the anterior angle, simple, moderately ampliate laterally with the basal angles well rounded, base marginate, surface covered with deep, simple, round punctures, each bearing a setulose hair and separated by an interval equal to their own diameter in the dorsal part, and broader on the sides; elytra ampliate laterally, geminate striate and punctate, with the intervals plane, of equal width in the dorsal part and bearing each a series of briefly setigerous punctures; pygidium with closely set, deep, setigerous punctures.

Length 3 mm.; width 2 mm.

Hab. Transvaal (Pretoria, Pietersburg); Mozambique (Beira).

Caccobius convexifrons, Raffr.,
Rev. and Mag. Zoolog., 1877, p. 10.

C. pudens, Péring., Catal. i., p. 243.

Var. *picipennis*, d'Orbign., Ann. Soc. Ent. Fr., 1902, p. 9.

According to d'Orbigny (Ann. Soc. Ent. Fr., 1805, p. 386) this species is identical with *C.* (*Onthoph.*) *convexifrons*, Raffr. I doubt whether this synonymy is justified. Raffray, himself an excellent and most trustworthy entomologist, gives to the ♂ a "vertex tuberculatus." None of my examples of *C. pudens* have a tuberculate vertex. d'Orbigny considers as a variety examples which are totally dark piceous brown, turning to light brown at the anterior angles of the prothorax, at the apex, and on the sides of the elytra.

This species occurs also in German East Africa, British East Africa, and the island of Zanzibar. In South Africa it is recorded from Southern Rhodesia (Salisbury and Sebakwe); Transvaal (Lydenburg).

Caccobius postlutatus, d'Orbign.,
Annal. Soc. Ent. Fr., lxxiv., 1905, p. 388.

Black, with a metallic sheen, elytra fuscous testaceous on the anterior dorsal part and testaceous on the sides and especially towards the apex; shiny, sub-orbicular; antennæ piceous; clypeus triangular from the genæ, incised in the centre of the apex with the

angles of the incision sharp and reflexed; head simple, frontal part a little convex, the clypeus and anterior frontal part are moderately closely punctate, and the punctures are round, but in the vertex they are somewhat remote; prothorax simple, sparingly setulose, ampliate rounded laterally, not sinuate towards the base and with the posterior angle indistinct, base not marginate, the surface covered with small, slightly elongated, equi-distant simple punctures separated by an interval equal to their own size, no median supra-basal longitudinal impression; elytra ampliate, very narrowly punctulate striate, intervals of equal width, and each with one series of briefly setigerous punctures; pygidium punctured; abdomen and legs aciculate; metasternum covered with round, somewhat closely set punctures median groove quite indistinct.

Length $2\frac{1}{2}$–$2\frac{3}{4}$ mm.; width $1\frac{3}{4}$–2 mm.

Hab. Southern Rhodesia (Salisbury). Originally recorded from British East Africa.

CACCOBIUS SEMINULUM, Klug, Cat. i., p. 263.

According to d'Orbigny, this species, which I have not seen, is closely allied to *C. Schædlei*, but differs from it in the punctures of the prothorax, which are more closely set and broader all over.

A new record of locality is that of Natal.

CACCOBIUS SCHÆDLEI, d'Orbign.,
Ann. Soc. Ent. France, lxxii., 1902, p. 10.

Small, shiny black, with the head and prothorax either greenish or slightly æneous, elytra with the apex and sometimes the sides reddish, occasionally also, but rarely, the anterior angles of the prothorax are of the same colour; the upper side is briefly pubescent. Head moderately densely and finely punctate, the punctures sparsely intermixed with larger ones; it is not carinate on the ♂, but has on the ♀ an arcuate carina set at a short distance from the clypeal margin which is incised in the centre with the sides of the incision dentate reflexed; prothorax simple, closely and somewhat deeply punctate, the punctures simple and separated by an interval not equal to their diameter; it is simple, the base cannot be said to be marginate, the posterior angles are not distinct, and the sides not sinuate behind; elytra moderately deeply, but narrowly striate, intervals with one series each of sub-scabrose briefly setigerous punctures, on the sides the striæ are distinctly punctate, but much less so in the dorsal part; pygidium strongly punctate.

Length $2\frac{1}{2}$–3 mm.; width $2\frac{1}{4}$ mm.

Originally described from German and British East Africa, this species, identified for me by M. d'Orbigny, reaches Southern Rhodesia (Plumtree).

Sub-Gen. DIAGLYPTUS, d'Orb.,
Ann. Soc. Ent. Fr., 1902, p. 15.

Diaglyptus multifidus, n. sp.

Very small, black; upper side entirely clothed with moderately long erect and very scattered setæ. Epistoma divided into five small teeth set about equally apart; head completely smooth, covered with an extremely closely set punctuation; prothorax uniformly covered with a simple, moderately fine, deep and very closely set punctuation, the sides are sinuate close to the posterior angles, the base is without fold; elytral intervals with a simple, closely set and deep punctuation.

Long. 2·2–2·5 mm.

Hab. Cape Colony.

H. d'Orbigny.

Gen. ONTHOPHAGUS.

Onthophagus rufovirens, d'Orb.,
Ann. Mus. Civ. Genov., xli., 1904, p. 266.

"Minute, somewhat shiny, entirely testaceous, head and prothorax greenish; upper side flavous pubescent. Head strongly and densely rugose punctate with a few minute punctures intermixed in the frontal part; clypeus slightly sinuate, frontal part with a somewhat short ridge, vertex with a straight ridge situated between the anterior margins of the eyes, angularly bent on each side, and obliquely produced forward between the frontal part and the temples; the whole of the prothorax simply, strongly and densely punctate, intervals of punctures slightly rugose, the posterior part is sub-impressed longitudinally in the centre, sides very slightly sinuate behind, base non-marginate; elytra with slender striæ, intervals moderately strongly, moderately densely punctate, and moderately raised longitudinally in the middle; pygidium closely and strongly punctate.

Length 3 mm.

Hab. Natal (Durban).

This species cannot be mistaken for any one of those in which the punctuation of the prothorax is simple, and the base non-folded; it is easily distinguished by its small size, its entirely testaceous colour with, however, a green sheen on the head and prothorax; this latter

part is covered with a uniform broad, closely set punctuation, and the sides are very slightly sinuate near the posterior angles."

ONTHOPHAGUS SIMONI, d'Orbigny,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 23.

Shiny, black with a metallic sheen, noticeable on the elytra, but turning to dark bronze-green on the prothorax and head; club of antennæ black, or deep fuscous; head weakly pubescent, like the prothorax the median discoidal part of which is, however, glabrous; elytra with a double row of short setæ in each interval, pygidium densely but briefly pubescent. Head finely punctate but also with larger intermingling punctures on the frontal part and on the vertex; clypeus rounded, very slightly sinuate in front, rugose, genæ as deeply punctate as the frontal part which bears an arcuate ridge reaching almost the suture of the genæ; behind this ridge is another one not quite reaching the eyes and equi-distant from the vertex and the anterior ridge and not as arcuate as the latter; on the vertex itself is a third, not very well defined sub-triangular ridge; prothorax simple, with the base not marginate except in the very centre above the scutellum, hardly sinuate laterally behind, with the angle quite obtuse, yet distinct, covered with equi-distant, simple punctures, not much more closely set in the centre than on the sides, in the posterior part of the disk is a short, shallow, longitudinal sulcus reaching the base; elytra narrowly striate punctate, intervals very finely aciculate, almost plane and bearing each two rows of rough, somewhat unequal, deep, setigerous punctures; pygidium with deep, irregular, contiguous punctures; sternum moderately closely but not deeply punctured; femora remotely punctate; inner spur of anterior tibiæ long and slender, hooked inwardly at tip.

Closely allied, according to d'Orbigny, to *O. modestus*, Har. Cat. (i., p. 234), which differs, however, in addition to minor characters, by the uniform, closely set, large punctures of the prothorax, the narrower striæ of elytra, and the intervals which are longitudinally raised in the centre.

Length $4\frac{3}{4}$–5 mm.; width 3–$3\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali).

ONTHOPHAGUS GRANULUM, d'Orbign.,
Ann. Mus. d. Genov., xli., p. 326.

O. granum, d Orb., Ann. Soc. Ent. Fr., 1902, p. 35.

Black, with a slight metallic tinge especially on the head and prothorax, legs piceous, antennal club piceous; (♀) clypeus a little

elongated in the centre, plainly incised with the angles of the incision triangular, but little reflexed, at the junction of the clypeus with the frons is a short, sub-arcuate ridge, and exactly between the eyes a transverse, more highly raised carina not reaching quite to the genæ, and a very faint one on the margin of the vertex, the clypeal part is roughly and closely punctate, the punctures are simpler in front of the frontal carina, and rounder and sparser at the back of it; prothorax simple, glabrous, except for a few setæ on the sides, covered with simple, round, equi-distant punctures separated by an interval equal to their diameter, base very obsoletely marginate, posterior sides sinuate, disk not impressed longitudinally behind; elytra very narrowly striate with the intervals plane, except the second one which is somewhat convex towards the base, and bearing each two rows of simple, briefly setigerous punctures; pygidium with somewhat deep but also somewhat remote briefly setigerous punctures.

Allied to *O. simoni*, *O. importunus*, and *O. æquepubens*, but differs from each in the punctuation of the prothorax, which is simple, equi-distant, and more broadly separated than in any of the three species mentioned; the punctuation of the elytra is also less rugose.

Length $3\frac{4}{5}$–4 mm.; width 3 mm.

Hab. Transvaal (Waterberg District); Plat River, April 5, 1905; Mozambique (Lourenço-Marquez).

ONTHOPHAGUS ÆRUGINOSUS, Roth,
Wiegm. Arch. f. Naturg., xvii., 1851, p. 124.

O. chalcostomus, Fähr., Catal. i., p. 221.

O. tenuicornis, Klug, Cat. i., p. 221.

This species ranges eastward from Abyssinia to the Cape Colony.

ONTHOPHAGUS DEDECOR, Wallengr., Cat. i., p. 264.

O. nigrescens, d'Orbigny, Ann. Soc. Ent. France, lxxi., 1902, p. 21.

Somewhat shiny, sub-greenish black, head and anterior part of prothorax greenish, briefly fulvous pubescent above, pygidium with long, silvery, setose hairs. Head closely rugose, moderately thickly punctate in the centre in the male; clypeus sub-rotund or hardly sinuate; frontal part not carinate in the male and armed with two slender horns on the vertex, in the female the frontal part is briefly and sub-arcuately carinate, and the vertex provided with a laminiform ridge set between the hind margins of the eyes and produced on each side in a small horn. Prothorax simple, strongly and very densely rugose punctate, sulcate longitudinally in the centre of the posterior

part, impressed on each side near the posterior angles, broadly depressed in front in the male, strongly tuberculate there and depressed on each side in the female, the sides greatly sinuate behind, base non-marginate except for a narrow median part; elytra finely striate with the intervals plane, uniformly closely sub-rugose punctate; pygidium densely punctate.

This species is extremely closely allied to *O. æruginosus*, Roth, (*chalcostomus*, Fähr.), the only difference being that the former is more bronze or bronze-green, sometimes bluish, and slightly smaller. In the female the vertex bears a simple carina; the anterior part of the prothorax is less retuse, often without impression, and in the female the tubercle is less projecting.

Length 7–8½ mm.; width 4¼–5 mm.

Hab. Cape Colony (Kimberley, Vryburg); Southern Rhodesia (Zambesi River, teste d'Orbigny).

ONTHOPHAGUS ÆQUEPUBENS, d'Orbign.,
Ann. Soc. Ent. Fr., 1905, p. 395.

Bronze-black, shiny or with the head and prothorax bronze-green; densely but briefly pubescent on the upper side; antennal club piceous; ♂ clypeus somewhat elongated, deeply incised in the centre with the angles of the incision sharply triangular and very plainly reflexed, the anterior frontal part is simple, but near the vertex and between the eyes rise two sharp, straight horns disunited at the base, which stands in a line with nearly the posterior part of the eyes; both the clypeus and the frontal part are covered with contiguous, deep fossule-like punctures which are growing shallower towards the cephalic horns; prothorax sub-gibbulose, briefly retuse at the apex and having in the centre of this retuse part a very small tubercle, covered with contiguous, deep setigerous punctures which are slightly asperous in front and the sides, the posterior part of which is plainly sinuate with the basal angle rounded, the base is marginate, and there is a plain longitudinal, median sulcus in the posterior part of the disk; in the ♀ the clypeus is much less deeply and sharply incised, at its junction with the frontal part is a short, not much raised, strongly arcuate ridge, and in a line with the median part of the eyes a high, vertical, laminate ridge in a line with the eyes, and occupying one-half of the whole width; the prothorax is simple, more briefly pubescent than in the ♂, and the base is marginate in the median part only; elytra narrowly striate and not distinctly punctulate, intervals sub-tectiform and having two series of deep, uneven, not very regular punctures bearing each a minute

sub-flavescent hair; pygidium covered with contiguous, deep, moderately broad, setigerous punctures divided by a narrow, slightly raised interval; inner spur of anterior tibiæ straight.

Length 4–6 mm.; width $2\frac{1}{2}$–$3\frac{1}{2}$ mm.

Hab. Transvaal (Waterberg District); Southern Rhodesia (Salisbury, Sebakwe).

ONTHOPHAGUS BICONIFER, d'Orbign.,
Ann. Soc. Ent. Fr., lxxiv., 1905, p. 527.

"Shiny, coppery black, glabrous on the upper side, sides of the prothorax, elytra, and pygidium very briefly flavous pubescent. Head sub-finely and sub-densely punctate and having a few large, sparse punctures on the clypeus and on the genæ, clypeus truncate, frontal part arcuately carinate, vertex bi-tuberculate between the eyes, and very slightly depressed between the tubercles; prothorax simply, moderately strongly and moderately thickly punctate with the space between the punctures non-rugose, not sulcate lengthways, not depressed behind the posterior angles, the sides slightly sinuate behind, the base marginate in the centre only; elytra narrowly but distinctly striate, intervals nearly plane, uniformly, simply, moderately strongly and little densely punctate; pygidium very strongly and little densely punctate.

Length 4 mm.

Hab. Transvaal."

Very closely allied to two species, *i.e.*, *O. bituberans* and *O. bidenti frons*, d'Orb., which have not as yet been recorded from the South African Sub-Region.

ONTHOPHAGUS QUADRIMACULATUS, Raffr.,
Rev. and Mag. d. Zool., 1877, p. 8.

"Ovate, moderately shiny, very briefly fulvous setose, bronzy; elytra with two transverse external red macules, one basal, the other, which is smaller, apical; head briefly rounded; clypeus hardly sinuate, rugulose punctate, frontal part obsoletely carinate, vertex vaguely punctate, bi-tuberculate; prothorax strongly punctate, with the sides sub-angular, roundly dilated and from there slightly sinuated towards the base; elytra finely striate, intervals plane, hardly seriate punctate and then not deeply; pygidium strongly punctate; anterior tibiæ tri-dentate.

Length $4\frac{1}{2}$ mm."

Originally described from the Schimba Mountain, Zanzibar mainland. d'Orbigny records it from Southern Rhodesia (Salisbury).

ONTHOPHAGUS CINCTIPENNIS, Qued. Berl. Ent. Zeitsch., xxviii., 1884, p. 276.

O. patricius, Pér., Cat. i., p. 228.

d'Orbigny has established this synonymy (Ann. Soc. Ent. Fr., 1905, p. 532). The species was first described from Angola.

ONTHOPHAGUS MARSHALLI, d'Orbign.

This species is so closely allied to *O. granulum*, d'Orbigny, that I verily believe the two are merely the different sexes of one species. Moreover, my two examples of *O. granulum* and *O. marshalli* were found the same day and in the same locality. The example identified by d'Orbigny under the name of *marshalli* differs from *granulum*, also identified by d'Orbigny, in having the clypeus more broadly and more arcuately scooped in front with the angles of the incision sharper, the anterior frontal carina is more arcuate and reaches from one gena to the other, the posterior carina is somewhat more laminate, the very short triangular carina on the vertex is slightly more prominent than in *O. granulum*, and the punctures in front and behind the second frontal laminate carina are very much finer, being aciculate only; the prothorax is simple but bears in the anterior part of the apex a minute tubercle, the shape is the same as that of *O. granulum*, but the punctures are slightly smaller, and all of them extremely briefly setigerous, and so are the punctures on the intervals of the elytra, those of the pygidium are alike.

Length 4 mm.; width $2\frac{1}{2}$ mm.

Hab. Transvaal (Waterberg District, Plat River), April 5, 1905.

ONTHOPHAGUS BINODIS, Thunb.,
Mém. Ac. Petr., vi., 1818, p. 407.

O. columella, Fähr., Catal. i., p. 243.

ONTHOPHAGUS LACUSTRIS, Har.,
Mitth. Münch. Ent. Ver., i., 1877, p. 99.

Black, very little if at all metallic, briefly pubescent, antennæ fuscous black; clypeus semi-circular, emarginate in the centre, the margin slightly reflexed, head simple, clypeal and also the anterior frontal parts transversely carinulate plicate, the plication somewhat interrupted and sub-scabrose in the frontal part, and replaced on the vertex by confluent, sub-rugulose punctures; prothorax simple, covered with round, uniform punctures very closely set and separated

by an interval smaller than the punctures, glabrous in the dorsal part, briefly pubescent laterally; base narrowly marginate; elytra very briefly setulose, narrowly striate, the striæ shallow, indistinctly punctate, the intervals, which are of equal width, filled with a closely set, elongated punctuation with raised intervals forming a sort of longitudinal sinuous, shallow network; pygidium covered with shallow sub-contiguous punctures; inner spur of anterior tibiæ strongly incurved at tip.

Closely allied to *O. discretus*, Pér. (Cat. i., p. 239), but differing in the colour of the antennæ, and also in the sculpture of the elytra, which in *O. discretus* consists in the dorsal part of a double row of somewhat uneven shallow punctures, but not of a longitudinal network as in *O. lacustris*.

Length 13–13½ mm.; width 5–5¼ mm.

Hab. Mozambique (Beira). This species was originally described from Nyassaland.

Onthophagus serenus, Péring.,
Plate XLVIII., fig. 18.
Ann. S. Afric. Mus., iii., 1904, p. 221.

Black, shiny, with extremely minute hairs in the punctures of the head and prothorax, hardly pubescent underneath, club of antennæ black; clypeus deeply incised in front, and with the angles very sharp and reflexed, genæ triangular, projecting, there is no distinct clypeal suture or keel, but a slight carinulate elevation reaching the two genæ, the frontal part is simple, but there is a distinct, oblique supra-ocular ridge (♂); the prothorax is broader than long, rounded laterally, the outer margins are not highly carinate and the base has no distinct fold, the surface is covered with sub-contiguous cicatricose punctures, coarser on the sides than on the disk; elytra longer than the prothorax with the striæ distinct and the plane intervals finely granulose; pygidium broader than long, very closely punctulate, and glabrous, inner spur of anterior tibiæ curved inwards at apex in both sexes, but that of the male is thicker.

This species is allied to *O. lacustris*, Har., and *O. discretus*, Pér., but it differs in the incised clypeus, and also in having the intervals of the elytra normally granulose instead of being longitudinally shagreened as in the former, or sub-scabrose punctate as in the last-named species.

Length 7½ mm.; width 4–4¼ mm.

Hab. Southern Rhodesia (Sebakwe, Enkeldoorn)

ONTHOPHAGUS BEIRANUS, n. sp.

Fuscous bronze, moderately shiny, almost glabrous above; head and prothorax more æneous than the elytra, antennal club flavescent; clypeus rounded but somewhat obtuse in the centre, the margin of which is raised, and the genæ well projecting, it is separated from the frontal part by a distinctly raised, only moderately arcuate carina; in the great development of the ♂ the anterior frontal part is simple, and on the vertex are two long, erect horns as long as the whole head, not united at the base, and each set close to the eye; in the ♀ there is in the anterior part and close to the clypeal ridge a shorter, strongly arcuate one and the posterior part is produced into an erect laminate process deeply emarginate in the centre, where there is a very small tooth, the angles of the lamina being sharp and like short horns; the clypeus and the genæ are closely punctate, the punctures simple, the central frontal part is smooth in the ♂, finely punctulate in the ♀; prothorax declivous in front in the ♂ and with two slight depressions there immediately behind the cephalic horns, simple at apex, finely but not closely, and equally aciculate, slightly sinuate laterally behind with the basal angle quite rounded, and the base finely marginate on the sides of the base but not in the centre, no impression or traces of a longitudinal line in the posterior median part of the disk; in the small development of the ♂ the prothorax is a little more plane in front, almost vertical in the centre and has a faint, smooth ridge at the apex; elytra narrowly striate, the striæ closely punctulate; intervals of equal size in the dorsal part, and filled with two series of irregularly disposed punctures somewhat rough in the dorsal intervals and asperous or subgranulose laterally, each of them however extremely briefly setigerous; pygidium deeply and somewhat closely punctate, the punctures simple not setigerous, basal margin slightly angular in the centre; anterior tibiæ not mucronate inwardly and inner spur slightly incurved at tip in both sexes.

Differing as the two sexes seem to be in the armature of the head and shape of prothorax there can be no doubt as to their identity, 3 ♀ ♀ and 1 ♂ having been captured the same day and in the same spot.

The armature of the head in both sexes resembles that of *O. bovinus* Pér. (Catal. i., p. 209), but not so the shape of the clypeus and prothorax, or the sculpture of the latter. It is also allied to *O. birugatus*, d'Orb.

Length 7–8 mm.; width $3\frac{3}{4}$–$4\frac{1}{2}$ mm.

Hab. Mozambique (Beira; Lucitania).

ONTHOPHAGUS BOVINUS, Pér., Cat. i., p. 211.
O. lobigena, d'Orb., Ann. Soc. Ent. Fr., 1902, p. 53.

ONTHOPHAGUS FLAVIMARGO, d'Orbigny,
Ann. Soc. Ent. Fr., p. 59.

"Moderately shiny, testaceous, head and prothorax green-bronze, sides of the prothorax and base broadly testaceous; elytra tessellated with black, the minute macules are round and situated between the granules; glabrous on the upper side; head briefly but not conspicuously flavous pubescent in front, also the sides and apex of the elytra, and the pygidium. Head bi-carinate, finely and densely rugose granulate, but with simple punctures on the vertex; clypeus rounded, anterior carina set a little before the middle, and subarcuate, hind carina set between the eyes but slightly past the anterior margin of the eyes and strongly angulate backwards in the centre; prothorax with simple punctures moderately dense and moderately deep, somewhat unequal and deeper towards the sides, posterior sides sinuate, base marginate; elytra somewhat finely striate, intervals plane, sparingly and not regularly granulate; pygidium not densely punctate.

Length 7–7½ mm.

Hab. Natal."

This species, which is not known to me, is compared by d'Orbigny to *O. ambiguus*, Péring., but the armature of the head differs. I should not be surprised if it proved to be identical with *O. plebejus*, Kl.

ONTHOPHAGUS LIMBIBASIS, d'Orb.,
Ann. Soc. Ent. Fr., 1905, p. 428.

? Female: "Slightly shiny, head and prothorax bronze-green, base of prothorax broadly testaceous; elytra testaceous, sprinkled with small black rounded patches surrounding a granule; pygidium testaceous, glabrous on the prothorax but with the sides briefly flavous-pubescent, on the elytra this pubescence is very short, but long towards the apex and also on the pygidium; head granulate in the anterior part, simply punctate on the posterior, not carinate, having merely a minute tubercle between the eyes, clypeus rounded; prothorax simply and sparsely punctate, the punctuation being moderately fine and moderately equal in the centre, but intermixed with plainly larger ones towards the sides, sides sinuate behind, base marginate; elytra finely striate, intervals plane, sparingly and irregularly granulate; pygidium sparingly granulate punctate.

Length 7½ mm.

Hab. Lake N'Gami.

Resembles *O. flavimargo*, Orb., differs by the non-testaceous sides of the prothorax, the long, instead of short, pubescence of the apical part of the elytra and of the pygidium, the head without ridge and having only a small tubercle between the eyes, the remote punctuation of the prothorax which consists of little unequal and moderately fine punctures in the centre, and on the sides of fine punctures intermixed with very large and very remote ones, instead of the punctuation being uniformly moderately close, moderately large and consisting of slightly unequal punctures."

ONTHOPHAGUS CONSOBRINUS (♀) Péring., Cat. i., p. 259.

Male: Black, very shiny, with hardly any metallic tinge, or a very indistinct one. Clypeus deeply and broadly scooped in the anterior part, the margin strongly reflexed and angular on each side of the scooped part as in the ♀, on the vertex is a highly raised arcuate lamina forming a semicircle the ends of which abut on the base of the head behind the posterior edge of the eyes and which is continued transversely for a short distance along the base to a little short of the central part where there is a transverse smooth fold, this semicircular wall is a little blunt in front, and the space it encloses is much more simply punctate than the same part in the ♀, the punctuation of the clypeus is not so rugose, and not plicate; in the great development, the centre of the prothorax is strongly sloping and there is on each side of the slope a subtransverse impression surmounted by a smooth, round callus at the top of the declivity; the rest is as in my description of the ♀ (*loc. cit.*) but in well-preserved examples every granule in the intervals of the elytra bears a minute sub-flavescent hair, and the deep, somewhat scattered punctures of the metasternum carry a long, stiff hair of the same colour.

Length 9–11 mm.; width 6–7 mm.

Hab. Southern Rhodesia (Sebakwe); Northern Rhodesia (Kafue River; Feira). This species ranges from Lake Chad through British and German East Africa and reaches Mozambique and Southern Rhodesia.

ONTHOPHAGUS CARBONARIUS, Klug, Cat. i., p. 244.

O. glaber, Boh., Cat. i., p. 239.

I think that d'Orbigny is right in suggesting that *O. carbonarius* is the ♂ of *O. glaber*, but not in suggesting that *O. vicarius*, Péring., is the same species.

ONTHOPHAGUS SUBPLANUS, d'Orbign.,

Ann. Soc. Ent. Fr., lxxi., 1902, p. 59.

"Hardly convex, moderately shiny, reddish testaceous, head darker, glabrous on the upper side, pygidium very briefly and sparsely setose; head closely punctulate, with only one very obsolete carina somewhat short, nearly straight and set slightly in front of the eyes, the anterior part is finely transversely plicate, the rest of the surface moderately finely and closely punctulate; prothorax with simple fine punctures more sparse on the disk and gradually denser towards the sides which are hardly sinuate behind, the base is marginate; elytra very finely striate, intervals convex at the base, nearly plane beyond it, and bearing simple, moderately fine punctures disposed irregularly; pygidium covered with a fine but remote punctuation.

Length $5\frac{8}{10}$ mm."

Hab. Transvaal (Pietersburg).

d'Orbigny says of this species, which I have not seen, that it resembles no other known to him.

ONTHOPHAGUS VENTROSUS, d'Orbig.,

Ann. Soc. Ent. Fr., lxxiv., 1905, p. 530.

"Shiny, head and prothorax dark greenish bronze, elytra and pygidium sub-viridous black, glabrous on the upper side, sides of elytra and pygidium very briefly flavous pubescent. Head inermous, simply, finely and thickly punctate, but more strongly so on the genæ, and having a few larger punctures on the temples; clypeus narrowed at apex, recurved and rounded; prothorax entirely simply, moderately deeply, and also moderately densely punctate, and having a few minute punctures intermixed in the middle of the anterior declivity, broadly depressed on each side in front, the median part broad, gibbose, and briefly sub-carinate obliquely on each side near the depression, sides very slightly sinuate behind, base marginate; elytra moderately finely striate, intervals plane, and moderately densely punctate granulate; pygidium moderately densely punctate.

Length $7\frac{1}{2}$ mm.

Hab. Transvaal."

d'Orbigny compares this species with *O. latigibber* from the Cameroons, Sierra Leone, &c.

ONTHOPHAGUS MINUTULUS, Har., Cat. i., p. 263.

d'Orbigny, in Ann. Soc. Ent. Fr., 1902, p. 96, says of this species, the type of which he has examined: "The head has only two very fine carinæ dividing it transversely in three parts, the median one being the smaller, the other two being about equal, the anterior carina is arcuate and reaches the suture of the genæ, the hind one is straight, much shorter, slightly interrupted in the middle, situate between the anterior edge of the eyes and not occupying much more than a third of the distance. The colour is shiny ebony black, the prothorax has a broad remote punctuation with the admixture of a few fine punctures; the intervals of the elytra are filled with remote, irregularly disposed granules."

ONTHOPHAGUS PAUXILLUS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 97.

"Minute, moderately shiny, black, elytra testaceous, with the juxta-sutural interval, often the basal margin, and sometimes a small macule situate in the third posterior part of the disk black; briefly flavous pubescent on the upper side. Head wholly as strongly and densely sub-rugosely punctate on the clypeus as on the genæ, clypeus sinuate, frontal part arcuately carinate, vertex with a short, straight carina situated in the middle in a line with the eyes; prothorax uniformly moderately strongly and densely punctate, the punctures simple; sides sinuate behind, base minutely marginate; elytra moderately striate, intervals plane, and irregularly granulate; pygidium densely and moderately strongly punctate and with intervening minute punctures.

Length $2\frac{1}{2}$–$3\frac{1}{5}$ mm.

Hab. Transvaal (Pretoria); Cape Colony (Vryburg)."

d'Orbigny states that this species is closely related to *O. pullus*, Roth., which differs from it by the very sparse broad punctuation of the ♂, which has only a small horn situate in the centre, while the ♀ has a singularly arcuate frontal carina situate in the anterior third, and sometimes faint traces of an inverted arcuate carina or of a tubercle situate towards the posterior third between the fore part of the eyes, the prothorax is more broadly and less closely punctate; the punctures on the pygidium are very big, but also mixed with fine punctures.

ONTHOPHAGUS PULLUS, Roth.,
Wiegm. Arch. f. Naturg., xvii., 1, 1851, p. 127.

O. brevicornis, Fähr., Ins. Caffr., ii., p. 314.

Head and prothorax fuscous coppery on the upper side, elytra

rufo-testaceous, with the basal margin nigrescent or fuscous, antennæ rufescent, club fuscous. Head hardly broader than long, with sub-angulate genæ, piceous tinted with coppery, sparingly pubescent, minutely punctate in the centre and more deeply and closely in front and on the genæ, anterior margin of clypeus moderately raised, sub-truncate or hardly distinctly sinuate in the anterior part, vertex with an erect, subulate tooth dilated at base and slightly shorter than the head in the ♂, while the ♀ bears there a transverse granule or a little distinct carinule; prothorax deeply emarginate at apex, obtusely and moderately rounded at the base, convex on the upper part, somewhat distinctly retuse in front, deeply and moderately closely punctate and with a rufous macule in the middle of the sides; elytra very finely striate, with the intervals sparsely and most minutely granulate punctate, and with the punctures very briefly setulose; pygidium black like the under side, sparsely punctate.

Length 2⅔–3 mm.; width 1½–1⅔ mm.

I mistook this species for *Caccobius viridicollis*, Fähr. (Cat. i., p. 173), which it greatly resembles, but from which it differs by the armature of the head. d'Orbigny records it from Natal and the Transvaal (Pietersburg). It was originally described from Abyssinia, and has been found in British and German East Africa.

ONTHOPHAGUS DECLIVICOLLIS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 72.

"Somewhat shiny, black, head and prothorax blackish bronze, elytra black piceous, briefly flavous pubescent on the upper side. In the ♂ the head in front and on the vertex is nearly smooth, the clypeus rugose, rounded at apex, the front has an arcuate carina, and the vertex a narrow lamina briefly dentate on each side towards the base, produced into a horn in the centre, and situated between the eyes; prothorax simply, strongly and moderately densely punctate, the intervals between the punctures are nearly plane; in the ♂ the anterior part is raised and produced in the middle, emarginate and bi-tuberculate at apex, slightly hollowed near by and smooth there, sides hardly sinuate behind, base marginate; elytra not deeply striate, intervals sub-convex and with an uneven surface, moderately densely and irregularly granular, but the sides are strongly and nearly simply punctate. Pygidium moderately deeply, and moderately densely punctate.

Length 6½ mm.

Hab. Natal."

d'Orbigny says of this species, which I have not seen, that it is closely allied to *O. hyœna*, the latter differing from it by having the intervals of the elytra plane, with an equal surface, and with the greatest part filled with very fine granules very little closely set, and disposed in two series; the punctuation of the prothorax is less deep and more spread. It is also closely allied to *O. cretus*, Péring., which differs by the prothorax being much more closely punctate with the intervals between the punctures wrinkled, and the sides plainly sinuate near the basal angle.

ONTHOPHAGUS SETOSUS, Fähr., ♀,
Insect. Caffr., ii., 291; Catal. i., p. 198.

O. cretus, Péring., ♂. Cat. i., p. 199.

I had most probably seen a wrongly named co-type of Fähræus when I placed this species on synonymy with *O. piceus* and *O. lugens* of the same author. Harold, however, has united with this species *O. scabrosus* and *O. pedestris*, Fähr. I have done the same for the two latter (Catal. i., p. 199). According to d'Orbigny my *O. cretus* is the ♂ of *O. setosus*, the type of which is a ♀.

ONTHOPHAGUS CINERACEUS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 71.

"Opaque, black, very briefly pubescent on the upper side, but with the pubescence longer on the head. Head strongly punctate, clypeus more or less rugose, hardly sinuate at apex, frons arcuately carinate, vertex in the ♂ with a short conical tooth, or a tubercle situated nearly in the middle of the space between the eyes, in the ♀ with a straight, somewhat long carina situated between the eyes near their posterior margin; prothorax strongly but not densely punctate and more minutely and sparingly so in the median part of the base, briefly transversely callose or indistinctly bi-tuberculate in the middle of the anterior part; sides hardly sinuate laterally, base marginate; elytra broadly striate, with the intervals plane, and with simple, moderately deep, dense punctures set without order; pygidium simply and moderately strongly punctate."

d'Orbigny compares this species, which I have not seen, to *O. minutus*, Hausm., which differs by the prothorax being very closely punctate, and having no projection in the anterior part, while in the ♀ the carina of the vertex is much shorter and occupies only half the width of the area between the eyes."

I am fain to think, however, that this species is merely a

slight variation of *O. minutus*, which is one of the four species of *Onthophagus* found in the neighbourhood of Cape Town.

Length 5–6½ mm.

Hab. Cape Town, Cape Colony.

ONTHOPHAGUS HYÆNA, Fabric.,
Syst. Eleuth., 1801, p. 51.

O. impictus, Fähr., Cat. i., p. 203; Ann. Soc. Ent. Fr., 1902, p. 71, teste d'Orbigny.

ONTHOPHAGUS MINUTUS, Hausm.,
Illig. Mag. f. Insekt., vi., 1807, p. 263.

O. opacus, Fähr., Catal. i., p. 202.

This synonymy is due to d'Orbigny (Ann. Soc. Ent. Fr., 1902, p. 70).

ONTHOPHAGUS VARIOLOSUS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 76.

"Opaque, black, glabrous on the upper side; head very minutely punctulate, slightly rugose in front, more distinctly punctate towards the sides and behind, not carinate, strongly tuberculate between the eyes, clypeus sub-angularly rounded; prothorax with simple, strong, closely-set punctures, intervals of the punctures sub-rugose, the anterior part is briefly transversely callose, the sides sinuate behind, the base marginate; elytra little deeply striate, intervals plane, closely punctate, the punctures large and slightly granulose inwardly, the intervals between the punctures sub-rugose; pygidium strongly and closely punctate.

Length 7 mm.

Hab. Cape Town."

This species, which I have not seen, is, according to d'Orbigny, unlike any other. It is easily recognised by its very closely set large punctuation, and especially owing to the very peculiar formation of the punctures of the intervals of the elytra.

ONTHOPHAGUS APICIOSUS, d'Orb.,
Ann. Soc. Ent. Fr., 1902, p. 92.

Dark bronze, almost bronze-black in some examples, glabrous on the upper side. Clypeus sub-triangular, the anterior median part which projects considerably is broadly bi-dentate, the margin is reflexed all round; these anterior teeth are less conspicuous, been

probably worn out in several examples of both sexes; there is no frontal suture or carina in either sex, but there is in both a highly raised carina situated in a line with the median part of the eyes, but not reaching the latter; this carina is straight in the ♂, and slightly arcuate and less raised in the ♀, in which the anterior part of the clypeus is also more plainly plicatulate; the punctures of the frontal part and the apex are simple, moderately deep, and separated by an interval about equal to their own diameter; prothorax simple, but slightly retuse in front in the large development (♂), the retuse part bounded at the top by a very faint tubercle; it is strongly sinuate laterally behind, and the base has a somewhat weak fold in the centre, but that fold or margin becomes very indistinct towards the sides; there is a faint median longitudinal impression above the base which is not angular, and the whole surface is covered with simple, equi-distant punctures separated by an interval equal to their own diameter; elytra moderately ampliate laterally, narrowly striate, the intervals plane and having each two rows of small, very little asperous, if asperous at all, punctures except towards the apical part where they become more so; pygidium glabrous and covered with punctures similar in size and arrangement to those of the prothorax; under side and legs bronze-brown, glabrous.

Length 6–8 mm.; width 3–5 mm.

Hab. Natal (Estcourt, Maritzburg, Durban); Southern Rhodesia (Umtali); Mozambique (Feira). The species was originally described from German East Africa.

ONTHOPHAGUS CONFERTUS, Péring., n. sp.,

O. pusio, Pér., *nec* Fähr., Cat. i., p. 203.

Black, shiny, glabrous, clypeus with the median anterior part produced into two triangular teeth coalescing at the base, no frontal carina, in the centre of the vertex a small, conical tubercle, somewhat transverse at apex, set in a line with the anterior edge of the eyes, clypeal and frontal parts covered with simple punctures set very close to each other, those on the vertex slightly more broadly separated; prothorax simple, somewhat abruptly sloping in front but rounded there, covered with deep, simple punctures separated by an interval inferior to their own diameter, sides sinuate laterally in the posterior part, basal fold indistinct in the centre which is somewhat angular, the base itself not impressed longitudinally there; elytra short, being only very little longer than the prothorax, somewhat ampliated laterally, the striæ with a double series of somewhat minutely setigerous sub-scabrose punctures.

I am not satisfied that this species is not identical with *O. pusio* ♂;

the alleged co-type, if not type, of which I have seen, but Fåhræus ascribes to it a thorax with "remote punctures," as well as elytral "intervals sparingly punctate," which is not the case in *O. confertus*. This species, however, belongs to a group in which there are no traces of frontal carina in either sex, only a small horn or a tubercle on the vertex. Fåhræus' description of the ♂ possesses this character, but to the ♀ he ascribes two frontal transverse arcuate carinæ, which could not be applied to *O. confertus*. This latter is allied to *O. apiciosus*, but differs by the less closely punctate prothorax, which has distinctly a basal fold, and by the more transverse carina of the vertex, the said carina being also situated more backwards than in *O. confertus*.

Length 5 mm.; width $3\frac{1}{4}$ mm.

Hab. Natal (Maritzburg).

ONTHOPHAGUS LÆVATUS, d'Orbigny,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 69.

"Black, shiny, glabrous; head minutely and densely punctate, clypeus rugose, truncate at the apex; frontal part with a long carina produced as far as the outer margin of the head, and having on the vertex a shorter carina situate between the eyes and in the middle; prothorax minutely and not very densely punctate, the punctures simple, nearly smooth in the posterior half, more deeply and more densely sub-rugosely punctate towards the sides, gibbose in the middle of the anterior part and with a tubercle or a callosity on each side of the apex; hind part of the sides sinuate, base very finely marginate, the striæ briefly sulciform at the base, intervals plane, most minutely and sparingly punctate; pygidium sub-finely punctate. Club of antennæ black or deep fuscous.

Length 7–9 mm.

Hab. Mozambique (Delagoa)."

I have not met with this species, and the description here given is that of d'Orbigny.

ONTHOPHAGUS PLACENS, Péring.,
Ann. S. Afric. Mus., iii., 1904, p. 219.

Male: Black, very shiny, glabrous on the upper side, but with the epipleural fold punctulate, and with a few fulvous hairs, prosternum hairy, legs sparingly hairy, clypeus semicircular but broadly although not deeply emarginate in front, strongly plicate transversely, separated from the frontal part by a transverse, not much raised keel extending from one gena to the other, far in front of the eyes, frontal

part produced into a long, sharp horn sloping backwards, triangularly laminate for half the length, slender and acute thence; genæ wide, upper part of the eyes very narrow; prothorax with a marginal fold all round, quite rounded laterally behind, impunctate and with the median part depressed from the anterior margin to two-thirds of the length; elytra shorter than the prothorax, punctate striate with the intervals plane and impunctate; pygidium much broader than long, faintly punctulate, glabrous; sides of the metasternum and episterna with scattered piligerous punctures; abdomen punctulate laterally along the edge of the segments, femora with only a few setigerous punctures; anterior femora tri-dentate outwardly and not distinctly serrate above the teeth, inner spur of anterior tibiæ strongly bent inwardly at tip.

Length 10 mm.; width $6\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali).

ONTHOPHAGUS ALBIPENNIS, n. sp.

Dark bronze, shiny, glabrous; elytra very light straw-colour with the suture dark bronze, antennæ fuscous; clypeus rounded with the anterior part deeply, arcuately scooped but with the angles of the projection not projecting although sharp, margin slightly reflexed, genæ projecting but not angular, in the anterior frontal part is an arcuate carina, and between this one and the vertex proper, and equi-distant from both, is another arcuate carina, the centre of which is moderately highly dentate, and the ends set behind the eyes, the clypeal part is deeply and somewhat coarsely punctate on the sides, and so are the genæ, the space between the carinæ and the vertex is weakly and somewhat remotely punctulate; prothorax simple, with the sides not sinuate, the basal angle absent, the whole base marginate, somewhat plane on the upper side, and with no distinct longitudinal sulcus or depression in the middle of the posterior part, the whole surface is covered with moderately fine round punctures separated from each other by a smooth space about equal to their own diameter; elytra plainly punctate striate with the dorsal intervals of equal width, smooth and plane; pygidium with the basal margin broadly sub-triangular, glabrous and covered with punctures that are deeper than those on the prothorax, but equally distant from each other; inner angle of anterior tibiæ strongly mucronate, spur directed outwards.

Length $3\frac{3}{4}$–4 mm.; width $2\frac{1}{2}$ mm.

Hab. Cape Colony (Uitenhage).

Closely allied to *O. flavipennis*, Fähr. (Catal. i., p. 231), but in that species the prothorax is almost completely smooth.

ONTHOPHAGUS FLAVOLIMBATUS, Klug, Cat. i., p. 211.

O. semiflavus, d'Orb. *nec* Bohem., Ann. Soc. Ent. Fr., lxxii., 1902, p. 104.

O. breviculus, d'Orb., Ann. Soc. Ent. Fr., lxxiv., 1905, p. 440.

Bronze, very shiny, glabrous on the upper side, antennal club fuscous, elytra testaceous red, with the suture and a broad, arcuate æneous band, reaching on each side from the humeral part to past the middle, and probably often interrupted; clypeus elongate arcuate, broadly and somewhat deeply sinuate in the centre, the angles of the sinuation plainly projecting, especially in the ♂; and slightly reflexed, the genæ follow the line of the clypeus; the ♂ has on the vertex a short, sub-laminate carina with sharp angles and set in a line with the hind part of the eyes, the ♀ has a similar carina, but at the junction with the clypeus is another and more arcuate one; the clypeus as well as the genæ are very sparingly and somewhat remotely punctate in the ♂, more so on the sides of the clypeus and on the genæ in the ♀, but the frontal part is impunctate in both; prothorax simple, convex, sides very slightly sinuate towards the basal part the outer angles of which are not quite rounded, but nearly so, and with the base wholly marginate, the whole surface is covered with simple punctures, moderately deep and separated from each other in the anterior and lateral parts by a space equal to their own diameter, while in the dorsal median and posterior part the intervals are wider than the punctures; no depression in the posterior part of the prothorax; elytra broad and short, narrowly punctate striate, intervals tectiform and impunctate; pygidium deeply punctate, interval between the punctures as broad as the punctures themselves, glabrous, the basal margin very distinctly triangular; anterior tibiæ of ♂ mucronate inwardly and with the spur straight, merely angular in the ♀.

Length 3 mm.; width 2 mm.

First recorded from the Transvaal (Pretoria District) by d'Orbigny. My examples are from Southern Rhodesia (Plumtree).

ONTHOPHAGUS NANUS, Har.,
Monatsb. Berl. Akad., xliii., 1878, p. 211.

O. decipiens, Péring., Cat. i., p. 225; teste d'Orbigny, Ann. Soc. Ent. Fr., 1905, p. 442.

First described from German East Africa. In addition to the two localities I mentioned, viz., Natal (Malvern) and Mossamedes, this species is recorded from Natal (Isipingo, Zululand), Mozambique (Lourenço-Marquez), Nyassaland (Zomba, Blantyre).

ONTHOPHAGUS VERTICALIS, Fähr., Cat. i., p. 222.

O. corniculatus, Péring., *nec* Reiche., loc. cit., p. 222.

I placed (loc. cit.) *O. verticalis*, Fähr., Ins. Caffr., ii., p. 308, in synonymy with *O. corniculatus*, Reiche, which is certainly extremely closely allied to it. It differs, however, in the punctuation of the prothorax being simple and somewhat remote on the disk, with the exception of a median smooth band, but asperous and more closely set as it reaches the sides, where it is granulate, and that of the intervals of the elytra consists of not very closely set granules. In *O. verticalis* both the prothorax and the elytra are covered with very fine and very closely set granules.

In addition to the localities given, *O. verticalis* is recorded from the Orange River Colony (Bloemfontein) and Plumtree (Southern Rhodesia).

ONTHOPHAGUS DECEDENS, Péring.,
Plate XLVIII., figs. 5, 6.
Ann. S. Afric. Museum, iii., 1904, p. 219.

Head and prothorax light bronze, moderately shiny, the latter with a flavescent lateral patch, broad in the anterior part, narrower behind and not reaching the posterior angle, the elytra are light testaceous with the striæ fuscous, pygidium and pectus bronze, the legs sub-testaceous, the abdomen darker than the pectus; it is covered with a short, very dense greyish pubescence longer in the posterior part of the elytra, and very long and silky on the pygidium; clypeus slightly elongated, rounded in front with the anterior margin reflexed, covered with deep, transverse, setigerous punctures separated by raised, irregular folds; in the male the scabrose punctate frontal part is produced from the raised frontal suture into a triangular lamina dividing at the tip into two divaricating sharp horns, and having a short triangular tooth in the centre, the two teeth barely reach the height of the anterior part of the prothorax, the median anterior part of which is sub-vertical and impunctate along the base and also on each side of the declivity, but otherwise covered all over with very closely set granules denser and smaller on the centre of the disk than on the sides, the upper part of the anterior declivity is simple, in shape the prothorax is slightly broader than long, finely carinate along the base and the posterior angles are rounded; in the female the clypeus is less semicircular, the clypeal suture is arcuate and sharply carinate, the frontal part closely granular, and there is a slightly arcuate lamina-like ridge with sharp outer angles situated between the eyes but stopping at some distance from them; the anterior part

of the prothorax is not as highly raised as in the male and is therefore proportionately less declivous, but it is plainly bi-tuberculate; the intervals of the elytra are plane and very closely punctured; the closely punctate pygidium is nearly as broad as long in both sexes; in the male the inner spur of the anterior tibiæ is nearly straight, but it is slightly inflexed inwardly at tip in the female.

Closely allied to *O. pictipodex*, d'Orb., but the armature of the head is very different. *O. pictipodex* was probably described from female examples.

Length $8\frac{1}{2}$–$9\frac{1}{2}$ mm.; width 5–$5\frac{1}{4}$ mm

Hab. Southern Rhodesia (Sebakwe).

ONTHOPHAGUS URSINUS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 112.

Moderately shiny, black; elytra brownish red, except for a broad median triangular fuscous patch reaching from the base to about the middle and acuminate there, occasionally there is only a narrow reddish band along the sides and the apex, the upper part is clothed with a somewhat erect and moderately thick flavescent pubescence; clypeus sub-orbicular, very slightly sinuate in the centre of the anterior part, frontal part with an arcuate ridge between the genæ which are not very greatly projecting, and a transverse, fairly highly raised ridge broadly separated from the eyes, the surface is granulate except at the back of the anterior arcuate ridge; prothorax not much ampliated laterally, and having thus the appearance of being somewhat elongated, the posterior lateral margin is plainly sinuate, but the basal angle is not rounded; it is covered with closely set, elongated granules the intervals of which are setulose, the anterior part is simple and the disk very little convex, on the posterior part is a short supra-basal longitudinal impression, and the base is narrowly marginate; elytra hardly longer or broader than the prothorax, finely striate, the intervals with two series of granules turning on the sides to asperous punctures; pygidium covered with round punctures separated by an interval equal to their own diameter, and clothed with the same pubescence as the elytra.

Length $3\frac{1}{2}$–$3\frac{3}{4}$ mm.; width 2–$2\frac{1}{4}$ mm.

Hab. Natal (Durban); Mozambique (Rikatla).

ONTHOPHAGUS GRAPHICUS, Wallengr., Catal. i., p. 264.

Black, with a very faint metallic tinge on the head and prothorax, but more so on the under side and legs, glabrous; elytra flavescent

with the suture black, three black spots arranged transversely at some distance from the base between the suture and the fourth interval, and three larger macules partly connected occasionally in the posterior part midway between the middle and the apex; antennæ flavous; clypeus sub-triangular, obtuse or very slightly emarginate at the narrowed apex, and with the angles of the emargination not projecting, yet not blunt, the genæ continue the line of the clypeus and are angular in the median part, there is no clypeal or frontal suture or carina, but the very margin of the vertex is sharply marginate, the whole surface is covered with uniform, equidistant, simple punctures separated by an interval nearly equal to their own diameter; prothorax simple, somewhat convex, sloping forward, plainly sinuate laterally behind, the basal angle rounded and the base, which is somewhat angular in the centre, completely marginate, there is a very slight elongated impression in the central posterior part of the disk, the whole surface of which is covered by greatly elongated granules set extremely closely to each other; elytra very shallowly geminate striate, the intervals plane, of equal width in the dorsal part, and with two series each of shallow acicu-lations; pygidium glabrous, covered with deep, sub-fossulate but small sub-contiguous somewhat rugose punctures, basal margin plainly angular in the centre; anterior tibiæ hardly more than angular inwardly; spur thick and plainly hooked inwardly.

Length 4½–5 mm.; width 3 mm.

Originally recorded from the Transvaal (Christiana), is noted by d'Orbigny from Lake N'Gami. My examples are from Southern Rhodesia (Bulawayo).

This species is characterised by the head being without suture or carinæ and the base of the prothorax being somewhat angular in the centre.

ONTHOPHAGUS MACROTHORAX, d'Orb.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 119.

"Somewhat shiny, head and prothorax obscurely cyaneous green, elytra black, maculated with testaceous at the base, pygidium greenish black, upper side very briefly flavous pubescent. Head very short, granulate, clypeus strongly bi-dentate, the genæ strongly dilated and sub-angular; frontal part with a short, arcuate carina highly raised, vertex with a fine ridge situated behind the posterior margin of the eyes; prothorax ample, uniformly densely granulate, not depressed above the posterior angles, transversely bi-tuberculate in front, posterior part of the sides strongly sinuate, base sub-angularly pro-duced and not distinctly marginate; elytra not longer than the

prothorax, deeply striate, intervals plane, densely granulate; pygidium closely granulate punctate.

Length 6 mm.

Hab. Lake N'Gami."

ONTHOPHAGUS TEITANICUS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 121.

Bronze, somewhat shiny, briefly pubescent on the upper side, elytra black with a very broad, slanting, light testaceous basal band impinging on the three first dorsal intervals more than towards the humeral part, on the sides is a moderately narrow testaceous band sometimes interrupted in the centre, and each interval past the median part of the back is maculated with testaceous; clypeus arcuate but somewhat produced in the anterior part in the ♂, more regularly arcuate in the ♀, densely covered with somewhat asperous punctures disposed in transverse rows, genæ not incised in the ♂, slightly but plainly so in the ♀, frontal part with an arcuate carina on the vertex and a small tubercle in each sex (?), frontal surface covered with deep, closely set, somewhat rugose equi-distant punctures; prothorax simple, little convex, the sides not sinuate, without basal angle and marginate, the margin continued to one-third of the width of the base, no longitudinal median impression on the posterior part of the disk, the whole of which is covered with very closely set, equi-distant and somewhat elongated strongly asperous granules; elytra plainly broader than the prothorax, narrowly geminate striate, intervals almost plane, the dorsal ones of equal width, and filled with numerous, irregularly disposed, small granules; pygidium not as closely granulate as the prothorax, and the granules smaller; inner angle of anterior tibiæ absent in the ♂, the spur long, hooked inwardly at tip, sub-mucronate in the ♀, the spur straight.

Length 6½–7½ mm.; width 4 mm.

Hab. Mozambique (Beira).

Originally described from Zanzibar and the Zanzibar mainland; is also recorded from British and German East Africa.

ONTHOPHAGUS PARUMNOTATUS, Fähr., Cat. i., p. 200.

d'Orbigny records this species from British East Africa. He proposes the name of var. *conjunctus* (Ann. Soc. Ent. Fr., 1905, p. 454) to those examples in which the testaceous spots have coalesced and cover thus as large or larger area than the black background. I have received this variety from Sebakwe in Southern Rhodesia.

ONTHOPHAGUS AXILLARIS, Boh., Cat. i., p. 192.

O. crinitus, d'Orb., Ann. Soc. Ent. Fr., lxxi., 1902, p. 131.

O. criniger, d'Orb., Ann. Mus. Civ. Genov., xli., 1904, p. 326.

"But little shiny, black, head and prothorax blackish green, elytra with a minute rufous testaceous macule at the shoulders, and a smaller ante-apical one in the sixth interval; it is clothed on the whole upper side with a long, flavous pubescence. In the ♀ the head is closely granulate, the sides simple, the clypeus bi-dentate, the frons slightly arcuately carinate, the vertex with a very short, hardly distinct carina interrupted in the centre, and situated cross-wise in a line with the middle of the eyes. Prothorax closely and strongly granulate, not impressed above the posterior angles, and simple; sides strongly sinuate behind, base non-marginate; elytra broadly striate, intervals plane, strongly and sparsely granulate; pygidium sparsely granulate.

Length $7\frac{1}{4}$ mm.

Hab. Lake N'Gami."

d'Orbigny considers *O. criniger* as somewhat near *O. axillaris*, Boh., but I cannot differentiate it. *O. axillaris* differs from its very close ally, *C. obtusicornis*, by the more acuminate clypeus, which is more deeply emarginate in front and more dentate there, the genæ are also projecting further.

ONTHOPHAGUS PILOSUS, Fähr., Cat. i., p. 196.

pellax, Péring., loc. cit., p. 259.

ONTHOPHAGUS SENESCENS.

O. seniculus, Péring., Cat. i., p. 257.

The name *seniculus* having been already given by Fabricius to a species of *Onthophagus*, I propose to alter the specific name *seniculus* into *senescens*.

ONTHOPHAGUS BITUBER, d'Orbign.,
Annal. Mus. Genov., xli., 1904, p. 37.

"Somewhat shiny, head and prothorax sub-obscurely bronze-green, elytra fuscous with the suture bronze-green; pygidium greenish black; antennal club lightly testaceous; briefly flavous pubescent on the upper side. Head finely and simply punctate and having a few large punctures intermixed on the genæ and also on the temples, clypeus rugose, truncate in front; frontal part arcuately carinate, vertex with a small, erect lamina truncate at apex and situated between the hind margins of the eyes; prothorax granulate

and marked above the hind angles with a non-depressed smooth area, strongly bi-tuberculate in front, sides strongly sinuate behind, base non-marginate except in the middle ; elytra moderately striate, intervals plane, sparsely and minutely granulate towards the sutural part, but more densely and also more strongly towards the sides ; pygidium moderately densely granulate punctate.

Length 9 mm.

Hab. Barotseland.

This species cannot be mistaken for any other, it is distinguished by its truncate epistoma, its frontal part covered totally with a fine, simple punctuation ; its green-bronze prothorax, which bears in front two large tubercles, distinguish it from all the others having also the prothorax entirely granulate and a base without fold or an interrupted fold."

Strictly speaking, this species should not be included in the South African limit, being a trans-Zambesian one. It is most probable, however, that it occurs also on the South African side.

ONTHOPHAGUS CRIBRIPENNIS, d'Orbign.,
Ann. Soc. Entom. Fr., lxxi., 1902, p. 134.

" Sub-opaque, black, sometimes with the prothorax bronze-black in front, or with the elytra minutely marked with fuscous towards the shoulders, briefly pubescent on the upper side ; head closely asperate punctate or rugose granulate ; clypeus rounded or hardly sinuate, frontal part with an arcuate carina ; in the ♂ the vertex bears a somewhat long, triangular horn situated between the eyes ; in the ♀ there is a short carina, slightly inversely arcuate and situated a little in front of the posterior margin of the eyes ; prothorax strongly densely and sharply punctate, but more sparingly and almost simply so in the third posterior part of the disk, and sub-impressed in the centre in front in the ♂ ; sides very slightly sinuate behind, base marginate, but oftener than not the margin is interrupted on each side ; elytra moderately striate, intervals plane and covered with simple, strong, not very close, nor regularly disposed punctures ; pygidium punctate.

Length $6\frac{1}{4}$–8 mm.

Hab. Cape Colony ; Zululand."

d'Orbigny says of this species, which is unknown to me, that it is noticeable owing to the large, simple, little closely set punctuation of the elytra. It is not unlike *O. giraffa*, Hausm., which differs from it by its larger size, the much more finely and less densely punctured prothorax, and the intervals of the elytra which bear fine, remote granules.

ONTHOPHAGUS SEMIGRANIGER, d'Orbign.,
Ann. Soc. Ent. Fr., lxxiv., 1905, p. 463.

"Little shiny, black, glabrous on the upper side; head closely, finely asperous, clypeus emarginate, frontal part arcuately carinate, the vertex with a lamina not wide, situated long after the eyes and produced in the middle into a horn; prothorax closely and finely granulate, not depressed on each side above the posterior angles, broadly depressed in the middle in the anterior part, and with the sides strongly sinuate behind and only slightly sinuate near the anterior angles, base not marginate; elytra finely striate, intervals plane and very minutely punctulate; pygidium sub-densely and finely punctate, the punctures intermixed towards the sides with some larger punctures. Spurs of anterior tibiæ provided with a long, sharp incurved tooth, and set very close to the apex.

Length 7 mm.

Hab. Damaraland (Windhoek)."

d'Orbigny compares the species with *O. dicella*, Bat., from German East Africa.

ONTHOPHAGUS DISPAR, Pér., Cat. i., p. 229.

O. lævisutura, d'Orbign., Ann. Soc. Ent. Fr., 1902, p. 204.

The synonymy is mentioned by d'Orbigny (Ann. Soc. Ent. Fr. 1903, p. 297). His examples came from German East Africa.

ONTHOPHAGUS ASPERRIMUS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxii., 1902, p. 206.

incertus, Pér., Cat. i., 1901, p. 230.

dubius, d'Orbign., Ann. Soc. Ent. Fr., 1902, p. 238.

The description of d'Orbigny is posterior to that of *O. incertus*, Pér., but the name had already been used for an Asiatic species in 1898. *O. asperrimus* was originally described from German East Africa.

ONTHOPHAGUS PRÆTORTUS, Pér.,
Plate XLVIII., figs. 10, 11, 12.
Ann. S. Afric. Museum, iii., 1904, p. 220.

Dark coppery-bronze, very little shiny, antennæ dark bronze with the club black; clypeus semicircular, but slightly obtuse in front and with the margin very slightly reflexed, deeply punctate with the punctures coalescing along the margin, deeply depressed in

the central part in front of a highly raised transverse clypeal lamina which is slightly arcuate but produced on each side into a sharp, projecting angular process, and situated between the median part of the eyes, there is no frontal carinule; prothorax deeply sinuate laterally behind and with the posterior angles distinct, highly convex, retuse in front, bi-impressed in the middle of the anterior part, the two impressions surmounted by a small but very distinct tubercle, and having in the centre a very deeply emarginate, almost bi-tuberculate ridge, it is covered with very closely set scabrose punctures in the median part of the disk, and with granules on the other parts of the surface, and clothed with a very short, silky, whitish pubescence, the base is plainly grooved, and the edge of the margin has a series of punctures; elytra not wider than the prothorax at its broadest part, striæ narrow and shallow, intervals plane, closely punctured and pubescent; pygidium nearly as broad as long, covered with broad, deep, nearly equi-distant punctures, and clothed with a dense greyish-white silky pubescence; under side moderately pubescent; inner spur of anterior tibiæ long, the basal part is directed inwardly almost at right angles with the apex of the tibia, and there curves strongly outwards.

Allied to *O. dispar*, but different in colour and sculpture; the shape of the inner spur of the anterior tibiæ of the male is very singular, and unlike that of any other species of *Onthophagus* known to me.

Length 7–9¼ mm.; width 4½–5½ mm.

Hab. Southern Rhodesia (Sebakwe).

ONTHOPHAGUS SCAPULARIS, d'Orbig.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 197.

"Little shiny, head and prothorax obscurely coppery-bronze, elytra piceous black and marked on each side with a large, humeral testaceous macule, pygidium black; upper side very briefly flavous pubescent. Head very densely punctate, clypeus narrowed and truncate in the anterior part, frontal part not carinate, vertex very briefly carinate between the eyes; prothorax very densely and deeply punctate, the punctures simple in the disk, very slightly asperous towards the sides, the intervals between the punctures slightly rugose, it is depressed on each side in the anterior part, broad in the middle, and briefly subcarinate obliquely on each side next to the depression, sides very slightly sinuate behind, minutely marginate in the middle only, the margination except at that point being very indistinct; elytra thinly striate, intervals plane, extremely closely and strongly

asperate punctate; pygidium punctate, the punctures simple and dense.

Length 7½ mm.

Cape Colony (Port Elizabeth)."

Very closely allied, according to d'Orbigny, to *O. cupricollis*, Pér. Cat. i., p. 246), which differs from it merely by its light coppery, sometimes greenish colour except the elytra, which are testaceous, by the cariniform tubercle of the head which is set more backwards, and the genæ which are a little more projecting and less rounded.

ONTHOPHAGUS BICAVIFRONS, d'Orbign.,
Ann. Soc. Ent. Fr.. lxxi., 1902, p. 192.

"Moderately shiny, black, sometimes fuscous, glabrous on the upper side or very briefly flavous pubescent; head moderately strongly and moderately densely punctate, clypeus rugose, narrowed in front, truncate or sub-sinuate and slightly recurved, frontal part either not carinate or indistinctly so, vertex strongly tuberculate and deeply impressed on each side between the eyes, the impressions nearly smooth or sparsely punctate; prothorax very densely or sub-densely punctate the punctures on the disk being rounded and simple, sinuate and hardly asperous in front and towards the sides, depressed on either side in front with the median part broad, gibbose, the declivous anterior part briefly carinate obliquely on each side of the depression, sides strongly sinuate behind, base marginate and having on each side near the angles a slight cariniform crease weakly crenulate through having a series of large spots situated between the margin and the crease; elytra broadly striate, intervals plane, not densely granulate, but asperously punctate on the sides; pygidium moderately densely asperate punctate.

Length 7–10 mm.

Hab. Natal (Zululand, Durban); also German East Africa."

d'Orbigny compares this species with *O. impurus*, Har. = *discolor* Klug, of which it is an extremely close ally.

ONTHOPHAGUS PINGUIS, Gerst.,
Wiegm. Arch. f. Naturg., xxxvii., I., p. 50.

Moderately shiny, bronze-green with the head and prothorax more coppery-bronze; sides of prothorax and elytra, and the whole of the pygidium clothed with fulvous hairs; antennæ flavous; clypeus broadly triangular, twice as broad at the genæ as long, recurved in a somewhat blunt vertical lamina, head without transverse suture or

ridge, but the posterior part between the eyes is produced into a short, erect laminate process vertical from base to middle and triangular thence to the apex, where it curves slightly forward; in the smaller development the lamina is simply triangular from the base, the head is plicate rugose at apex, densely punctate in the centre, more remotely punctate in the posterior part and at the base of the laminate process, and more broadly and more deeply punctate on the genæ; prothorax closely granulate, but the median posterior part is deeply and closely punctate, the sides of the posterior part are sinuate, the base marginate; in the great development the median anterior part is strongly declivous and has an arcuate not much raised ridge which is emarginate in the centre, the declivous part being weakly punctate; in the smaller development the prothorax is simply and normally sloping, the median posterior part bears more or less distinct traces of a longitudinal groove; elytra with the suture shiny, narrowly geminate striate with very shallow transverse punctures, the intervals very closely granular except in the dorsal part of the first two intervals where the granules are partly obliterated; pygidium covered with rough, sub-contiguous punctures; sternum punctate; femora very closely punctate; metasternum with a furrow reaching nearly from base to apex.

Length 10–12½ mm.; width 6–8 mm.

Hab. Southern Rhodesia (Gazaland). Originally described from Zanzibar.

ONTHOPHAGUS LAMINIDORSIS, d'Orbign.,
Ann. Soc. Ent. Fr., 1902, p. 181.

"Moderately shiny, obscurely bronze-green with the elytra and the pygidium more obscure, glabrous above, sides of prothorax and of elytra, and also the pygidium briefly flavous pubescent. Head closely punctate, not carinate, depressed transversely between the eyes and provided past the line of the eyes with a short, erect small lamina; clypeus projecting, narrowed, reflexed and truncate in front; prothorax granulate, strongly and densely asperate punctate in the posterior half of the disk, and bearing nearly in the middle of the disk a transverse, erect, rounded or triangular transverse lamina, sides strongly sinuate behind; base marginate and finely carinate on each side along the basal margin; elytra broadly striate, intervals plane, somewhat finely and sparsely granulate towards the suture, and getting larger and denser towards the sides; pygidium densely granulate.

Length 11–13½ mm."

This species, which was first discovered in German East Africa, occurs, according to d'Orbigny, also in Southern Rhodesia (Umtali).

ONTHOPHAGUS EBENICOLOR, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 190.

"Shiny, black, nearly glabrous on the upper side; sides of the elytra, apex, and pygidium briefly greyish pubescent; head simply and finely punctate, that of the ♀ rugose in front; clypeus produced, reflexed and narrowed at apex, that of the ♂ truncate and hardly sinuate, that of the ♀ deeply sinuate or bi-dentate, frontal part not carinate, vertex depressed transversely between the eyes, but not on each side, and bearing between the posterior part of the eyes a small lamina, erect, truncate or sub-rounded at apex; prothorax simply and little densely punctate in the disk, but asperous in front and towards the sides which are strongly sinuate behind, base marginate; elytra broadly striate, intervals sub-convex, sparingly and finely granulate towards the suture, more densely and also a little more conspicuously so towards the sides; pygidium moderately densely and simply punctate.

Length 6½–7 mm.

Hab. Zambesi River; also German East Africa."

ONTHOPHAGUS RHYNCHOPHORUS, Pér.,
Plate XLVIII., fig. 15.
Ann. S. Afric. Mus., iii., 1904, p. 222.

Male: Black, moderately shiny, with extremely minute hairs in the punctures of the head, prothorax and elytra; antennal club reddish brown; clypeus parabolic, but produced in the centre into a subquadrate, strongly reflexed laminate process projecting far beyond the margin, the genæ are rounded, there are no traces of clypeal suture, but in the frontal part there is a very slightly raised, short, transverse fold interrupted in the centre, situated midway between the eyes, and ending far from them, the greater part of the clypeal area is transversely folded, and the rest of the surface, as also of the frontal part, is deeply and closely punctate; prothorax broader than long, simple, without any basal fold, covered with moderately deep punctures, slightly elongated and divided on the median discoidal part by intervals about equal to their diameter, but larger and more cicatricose on the sides; elytra longer than the prothorax, finely striate with the intervals plane, and having each three or two series of fine punctures; pygidium closely punctulate, glabrous, broader than long, and with a basal marginal fold; inner

spur of anterior tibiæ nearly straight, with the point slightly slanting inwards, but not hooked.

Length 8 mm. ; width 5 mm.

Hab. Southern Rhodesia (Sebakwe).

ONTHOPHAGUS SUTILICEPS, d'Orbign.,
Annal. Soc. Entom. Fr., lxxi., 1902, p. 207.

"Very small, convex ; sub-opaque on the upper side ; pygidium shiny ; black, with the elytra totally testaceous, or fuscous with the apex and oftener the sides broadly testaceous ; pygidium sometimes sub-virescent. Head closely granulate ; clypeus sinuate with the frontal part arcuately carinate ; vertex with a short carina situated in the middle of the eyes, angularly bent on each side and obliquely in the sides of the frontal part, and produced thence between the clypeus and the genæ as far as the external margin. Prothorax completely, very densely and confluently asperate punctate, sides very slightly sinuate behind, base very slightly marginate. Elytra moderately striate, intervals plane and with two series of granules. Pygidium closely punctate. Length $2\frac{2}{3}$ mm. Easily recognised by its small size, its convex shape, the colour, the arrangement of the carinæ of the head, and the confluent punctuation of the prothorax."

Length 2–$2\frac{1}{3}$ mm.

Originally described from the Congo and British and German East Africa, this species is noted by d'Orbigny from Southern Rhodesia (Plumtree).

ONTHOPHAGUS FIMETARIUS, Roth,
Wiegm. Arch. f. Naturg., xvii., 1, 1851, p. 126.

O. ? lugens, Fähr., Pér., *nec* Fähr., Cat. i., p. 198.

O. piceus, Fähr., Cat. i., p. 198.

This species has a very wide range of distribution. It is recorded from Senegal, Abyssinia, Somaliland, British East Africa, Transvaal, Natal, Bechuanaland, &c.

ONTHOPHAGUS CORONATUS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 165.

" Little shiny, chestnut-brown, very briefly flavous pubescent on the upper side, the pubescence longer on the prothorax. Head transverse and transversely divided into three equal parts by means of two carinæ, strongly but little densely punctate, but more so on the vertex, clypeus rugose, narrowly and not very visibly sinuate in

front, the anterior carina is arcuate, the posterior inversely arcuate and produced on each side as far as the anterior one; prothorax simple in front, strongly and densely punctate, the punctures nearly simple in the posterior half, but asperous in front and towards the sides the posterior part of which is slightly sinuate, base marginate; elytra moderately finely striate, intervals plane, moderately densely granulate; pygidium moderately densely punctate.

Length 4½ mm.

Hab. Mozambique (Lourenço-Marquez)."

ONTHOPHAGUS ASPERULUS, d'Orbign.,
Ann. Soc. Ent. Fr., lxxiv., 1905, p. 488.

"Little convex, little shiny, black, head and prothorax sub-bronze-black, briefly flavous pubescent, the pubescence, however, longer on the head and on the declivity of the prothorax; head smooth and having only a few sparse punctures, clypeus and genæ rugose, the former hardly sinuate, frontal part arcuately carinate, vertex having between the eyes in the ♂ a short, erect lamina truncate at apex, and in the ♀ a somewhat long, straight carina; prothorax entirely but not closely asperate punctate, briefly and strongly carinate in the middle, the said carina oftener excised in the centre; sides hardly sinuate behind, base marginate; elytra broadly striate, intervals plane, sparingly granulate; pygidium moderately strongly punctate.

Length 4½–5 mm.

Hab. Natal (Malvern), Transvaal (Boksburg; Johannesburg). Resembles much *O. hyœna*, Fabric. = *O. impinctus*, Fähr., differs mainly by the whole punctuation of the prothorax being finely asperous, instead of being simple; the frontal carina of the ♂ is less developed in the centre, and moreover in none of the males seen is the median projection of the prothorax as much developed as in the ♂ of *O. hyœna*."

ONTHOPHAGUS CYANEONIGER, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1907, p. 163.

"Moderately shiny, cyaneous black, flavous pubescent on the upper side. Head strongly punctate, rugose in front and on the genæ; clypeus rounded, frontal part not carinate in the male, arcuately carinate in the female, vertex with a transverse tubercle in the ♂ situated between the eyes and at about the middle, and in the ♀ with a short carina straight but slightly arcuate inversely; prothorax moderately strongly and not very densely punctate but more densely so on the sides, the punctures are asperous but simple

in the posterior half of the disk, anterior part simple, sides sinuate behind, base marginate. Elytra broadly striate, intervals subconvex, and with a double series of granules; pygidium strongly punctate.

Length $4\frac{1}{2}$–$5\frac{1}{2}$ mm.

Hab. Transvaal (Pretoria Distr.), Cape Colony (Vryburg), Orange River Colony (Bloemfontein), Natal."

This species, which is unknown to me, is compared by d'Orbigny with *O. læviceps*, which is not recorded from the South African region.

ONTHOPHAGUS INSIGNIS, Péring., Cat. i., p. 185.

O. guillemei ♀ d'Orbign., loc. cit., p. 173.

d'Orbigny records this species (a ♀) from the Congo State, I have received it lately from Southern Rhodesia (Sebakwe).

ONTHOPHAGUS ALBIPODEX, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 170.

O. leucopygus, Péring., *nec* Har., Cat. i., p. 187.

I identified this species with *O. leucopygus*, Har., in doing which I made a mistake. The true *O. leucopygus* differs from *O. albipodex* in having the intervals of the elytra convex and covered with finely spaced asperous punctures disposed on two rows.

d'Orbigny records this species from the Lake N'Gami; the examples I have seen are all from Southern Rhodesia (Bulawayo, Victoria Falls, Salisbury, Sebakwe).

ONTHOPHAGUS LEUCOPYGUS., Har., Catal. i., p. 187.

O. opimus, Péring., loc. cit., p. 189.

Recorded also from the Orange River Colony (Bothaville), Transvaal (? Lydenburg).

ONTHOPHAGUS QUADRATICEPS, Har., Catal. i., p. 263.

Female: This species, which I received quite lately, is like *O. leucopygus*, and to a certain extent *O. insignis*, easily distinguishable owing to the shape of the clypeus in which the genæ are nearly straight or very little ampliated laterally; this, in addition to the broadly transverse anterior part, gives that part of the body a somewhat quadrate appearance. The description of Harold (loc. cit.) is very clear, but he has undoubtedly mistaken the ♀ for the ♂, the latter of which I have also not seen. The head and prothorax are

covered with a very short but dense light flavescent pubescence; the clypeus is more closely scabrose than the frontal part, the clypeal ridge reaches from one gena to the other, but curves slightly backwards there, and is connected partly but not completely not by a raised fold but by a smooth line, having somewhat the appearance of a ridge, with the carina on the vertex, which is much raised, and occasionally sub-denticulate in the centre, slopes slightly towards the sides, and reaches from side to side a long way behind the eyes; the asperous granules of the prothorax are almost contiguous on the whole surface, thus differentiating this species from *O. insignis*, the granules of which are also larger, and from *O. leucopygus*, which is only distinctly granulose asperous in the central part; the elytra are pale straw colour with the suture, and occasionally two narrow strips on each side of the disk, light bronze; the punctures are somewhat closely set, the second, third, and fourth intervals have three series reaching from the base to about one-quarter of the length, and sometimes farther down; the pygidium is as broadly punctate as in *O. insignis*, but the punctures are more asperous, and the pubescence, which is much less dense than in *O. leucopygus*, is somewhat flavescent.

Length 7–8½ mm., width 3½–5 mm.

Hab. Cape Colony (Vryburg).

ONTHOPHAGUS CAFFRARIUS, d'Orbign.

Ann. Soc. Ent. Fr., lxxi., 1902, p. 171.

"Sub-opaque, head and prothorax obscurely greenish bronze, clothed with pale hairs; elytra totally testaceous and very briefly nigro setose; pygidium obscurely green-bronze, and with long but sparse white flavescent hairs; head granulate rugose, clypeus rounded, frontal part arcuately carinate, vertex with a long carina slightly arcuate, and situated between the posterior margins of the eyes; prothorax very finely and very densely granulate, but less so in the anterior part and towards the sides; it is abruptly declivous and smooth on each side near the posterior angles and has in the centre of the anterior part a not very distinct transverse tubercle; the back is not longitudinally sulcate, and the sides are strongly sinuate behind; base marginate; elytra minutely striate, intervals plane, very closely but finely punctate, the punctures simple; pygidium with close asperous punctures.

Length 8 mm.

Hab. Caffraria."

Evidently closely allied to *O. albipodex* and *O. leucopygus*.

d'Orbigny, who compares it with *O. quadraticeps*, says of it that it differs merely by the more shiny upper part, the intervals of the elytra with granules not closely set, and mostly disposed on longitudinal series; the granules on the prothorax are slightly less fine and slightly less closely set; and the elytra bear a very fine yellow pubescence.

ONTHOPHAGUS IMPRESSICOLLIS, Bohem., Catal. i., p. 188.
O. fossicollis, Qued. Berl. Ent. Zeitsch., 1884, p. 275, pl. 8, fig 3.

This species occurs also in Angola, the French Congo, and German East Africa.

ONTHOPHAGUS LATEFULVUS, Orb.
Ann. Soc. Ent. Fr., lxxi., 1902, p. 173.

Coppery bronze, sometimes with a greenish coppery tinge on the head and prothorax, underside and elytra bronzy, the latter with the base, apex, and sides more or less broadly testaceous, antennal club flavescent; clypeus rounded with the genæ not projecting, slightly emarginate in the centre in front, clypeus closely regulose punctate and granular, especially in the ♀; ♂ without any frontal carina, vertex with an erect horn, long or moderately long, broad at the base and situated between the eyes, cylindrical in the great development, triangularly elongated in the smaller, frontal part very sparsely punctulate; in the ♀ there is a strongly arcuate, well-raised carina that does not reach the anterior margin of the eyes, and on the vertex an equally long but much more raised transverse one which is occasionally produced in the centre, giving it thus the appearance of being then briefly tri-denticulate; prothorax retuse in front in the ♂, the apex of the declivity being sub-bi-tuberculate in the large development; the declivity is less high but more abrupt in the lesser development, and the apex is more deeply canaliculated and plainly bi-tuberculate; in the ♀ the prothorax is only briefly retuse in the centre, which bears two transverse tubercle-like ridges; in both sexes the posterior part is distinctly furrowed longitudinally behind, the sides moderately sinuate in the posterior part, and carinate like the entire base, the whole, briefly pubescent surface is covered with sharp equi-distant granules separated by an interval equal to their own size; elytra ampliate, intervals filled with seriate, very closely set granules; pygidium closely punctulate, somewhat pubescent.

Length 7–9 mm.; width 5–5¼ mm.

O. pugionatus, Fähr. (Cat. i., p. 192), of which d'Orbigny makes the present species a new variety, is very closely allied to it,

but differs in the sculpture of the head, and especially of the prothorax, which is only asperous in the centre of the posterior part instead of being granular.

It is also uncommonly like *O. bidens*, Oliv., from Senegal and it seems to take its place in Central East Africa. Its extreme South African limit would seem to be Beira (Mozambique).

ONTHOPHAGUS EBENUS, Pér., Catal. i., p. 205.

O. natalicus, d'Orbign., Ann. Soc. Ent. Fr., lxxi., 1902, p. 177.

d'Orbigny records this species from the Transvaal (Makapan).

ONTHOPHAGUS QUADRICALLOSUS, d'Orbign.
Ann. Soc. Ent. Fr., lxxi., 1902, p. 239.

"Opaque, black, briefly pubescent on the upper side. In the ♀ the head is rugose, the frontal part asperate punctate, the clypeus truncate, the front has a strong arcuate carina and the vertex a strong, but little arcuate one situated a little past the eyes; prothorax closely granulate, but little densely asperate punctate behind, smooth along the basal margin and having in the middle of the disk a longitudinal smooth, sub-cariniform line, transversely bi-callose in the middle of the anterior part (♀) and sub-callose on each side, sides sinuate near both the anterior and the posterior angles, base marginate, regularly rounded; elytra moderately finely striate, intervals plane, moderately densely granulate, the granules not disposed in order; pygidium moderately densely punctate, basal carina strongly angular in the centre; antennal club black.

Length 8½ mm.

Hab. Cape of Good Hope.

Greatly resemble *O. cameloides* (*urus*, Har.), which differs, however, by the sinuate epistoma, the frontal part covered with moderately closely set asperities, the prothorax more clearly and less densely granulate, without cariniform line in the middle of the disk, the base, which is not regularly rounded but is slightly angular in the centre, the sides, which are not sinuate near the anterior angles, and the intervals of the elytra, the granules of which are much more remote, and lastly the size, which is larger."

ONTHOPHAGUS GRANULIFER, Har.
Berl. Ent. Zeitschr., 1886, p. 143.

"Black, shiny, briefly flavous setulose on the upper side; clypeus emarginate, rounded on each side; prothorax nearly equally, little

densely granulate; elytra slightly striate, intervals somewhat regularly bi- or tri-seriately granulate, the granules somewhat remote; palpi and antennæ rufous, antennal club flavous rufous.

Length 6 mm.

Hab. Orange River Colony.

Head rounded; clypeus slightly hollowed, almost rounded; between the eyes is a raised transverse ridge in front of a second slightly curved one, the surface is strongly but not thickly granular; prothorax also fairly large, with granulations which are somewhat acute and closely set, but leaving a smooth space opposite in the scutellary region; the anterior angles are sharp, the base distinctly rounded, produced into an obtuse angle in the middle; elytra finely striate, the intervals flat and with 2 or 3 series of granules; pygidium fairly large, abundantly but not deeply punctate; under side and legs black; tarsi red-brown; antennæ brown-red with the club yellowish red."

ONTHOPHAGUS GIBBER, d'Orbign.

Ann. Soc. Ent. Fr., 1905, p. 493.

"Male: Somewhat shiny, head and prothorax bronzy, elytra black, very minutely maculated with testaceous at the base, more broadly at the apex; pygidium sub-greenish black, very briefly flavo-pubescent on the upper side. Head of the ♂ sparsely punctate, the punctures large, intermixed with very minute ones, clypeus rotundate truncate, frontal part not carinate, vertex armed with two straight diverging horns; prothorax uniformly strongly and densely asperate punctate, deeply depressed on each side in front (♂), the median part broad, sub-tuberculate on each side, sides hardly distinctly sinuate, base non-marginate; elytra moderately finely striate, intervals plane, moderately densely and finely granulate; pygidium moderately finely and moderately densely punctate.

Length 6⅓ mm.

Hab. Cape Colony (Graham's Town)."

d'Orbigny compares, loc. cit., this species with *O. gibberosus* from Liberia.

ONTHOPHAGUS CAMELOIDES, d'Orb., L'Abeille, 1900, p. 293.

O. urus, Har., Cat. i., p. 219.

Not aware that the name given by Harold had been used before him by Menetriés for a species from Lenkoran, I retained this name, which, however, was changed in 1900 by d'Orbigny (L'Abeille, xxix., 1900, p. 293) into *O. cameloides*. This name must therefore prevail.

ONTHOPHAGUS JUNODI, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 223.

"Moderately shiny, black, with the shoulders of the elytra, the apex and often the base and side with testaceous macules, briefly flavo-pubescent on the upper side; head sparingly granulose; clypeus completely smooth in the male, but in the female smooth in front only, excised at apex, frontal part arcuately carinate, vertex with a long, nearly straight carina situated between the hind margin of the eyes; prothorax moderately strongly and sub-densely subasperate punctate, more asperous or granulate in front and towards the sides, deeply declivous in front in the male, simple in the female; sides sinuate behind, base marginate; elytra tolerably striate, intervals plane, not densely granulate, the granules partly bi-seriate; pygidium strongly punctate, the punctures intermixed with smaller ones.

Length $4\frac{1}{2}$–$5\frac{1}{2}$ mm.

Hab. Mozambique; Delagoa Bay."

d'Orbigny compares this species with *O. sugillatus*, Klug (Catal. i., p. 214), which differs from it by the moderately projecting and less rounded genæ, the sides of the head not sinuate at the junction of the genæ and of the epistoma, the vertex, which in the ♂ bears usually two horns with their base dentate and a tubercle in the centre in front of the horns, while in the ♀ the vertex bears a slightly arcuate carina situated well behind the posterior edge of the eyes, and the whole prothorax is entirely granulate.

ONTHOPHAGUS RUBENS, d'Orb., Ann. Soc. Ent. Fr., 1902, p. 238.
O. exiguus, Péring., Cat. i., p. 215.

This name having been used in 1877 by Raffray for a species from Eastern Africa, d'Orbigny has therefore changed the name of my species.

ONTHOPHAGUS STELLIO, Erichs,
Wiegm. Arch. für Naturgesch. ix., 1843, p. 233.

"Black with a tinge of bronze, shiny, thorax punctate, greyish hirtulose, elytra testaceous, and maculated with two black bands. Length 2 lin. ♂. Vertex tri-dentate, the medium tooth abbreviated. Small, moderately shiny; antennæ obscurely testaceous; head with the clypeus emarginate in front; thorax moderately closely punctate, obsoletely canuliculate at the base, and covered with piliferous punctures; elytra briefly punctate striate, the intervals sub-biseriate punctate and with small whitish sub-seriate hairs, variegated with

black macules, 3 at the base, the outer being a humeral one, 3 macules in the middle disposed in the shape of a sub-arcuate band, and a single one near the apex; pygidium obscurely testaceous; legs piceous. ♂. Frontal part plane, sparsely punctate, with three horns on the vertex, lateral horns erect, median one short, truncate; prothorax sub-retuse in front."

Hab. Angola.

Damaraland (Okahandya, Gobabis) teste d'Orbigny.

ONTHOPHAGUS VARIEGATUS, Fabric.,
Suppl. Ent. System, 1798, p. 36.

O. venustulus, Erichs., Cat. i., p. 213.

O. variegatus was erroneously described originally from India.

ONTHOPHAGUS SUFFUSUS, Klug, Catal. i., p. 262.

O. crucifer, Klug., Catal. i., p. 217.

d'Orbigny states that *O. suffusus* is the ♀ of *O. crucifer* (Ann. Soc. Ent. Fr., 1905, p. 500).

ONTHOPHAGUS FRITSCHI, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 227.

"Not much shiny, black, sometimes with the head and prothorax bronze-black, or with the elytra rufescent at apex, briefly flavous pubescent on the upper side; head asperate punctate, clypeus deeply excised, frontal part either not carinate or not distinctly so, arcuately carinate in the female, vertex minutely tuberculate, in the middle but slightly past the anterior margin of the eyes, and beyond that having in the ♂ a long, reclined lamina, corniculate at each end, and oftener than not transversely sub-tuberculate between the small horns, and having in addition a small tubercle situated in the centre somewhat at the back of the anterior edge of the eyes; in the ♀ the vertex is not carinate but tuberculate on each side a little past the eyes; prothorax not very densely granulate, more frequently depressed and nearly smooth in the ♂, briefly arcuately carinate in the ♀, sides often slightly or hardly distinctly sinuate behind, but often sinuate near the anterior angles, base marginate; elytra sub-finely striate, intervals plane, sparingly granulate; pygidium sparingly asperate punctate.

Length 5–6 mm.

Hab. South Africa (collected by Fritsch)."

This species, according to d'Orbigny, is easily recognised by the

small tubercle which occurs in both sexes between the anterior edge of the eyes or slightly behind it; other allied species have in truth a median tubercle, but in the ♂ only, and situated slightly in front of the horns, whereas in *O. fritschi* ♂ it is far removed from the apex of the lamina, and from the base of the horns; in the ♀ the absence of the carina on the vertex of the head is also remarkable.

ONTHOPHAGUS TEMPORALIS, d'Orbign.
Ann. Soc. Ent. Fr., lxxi., 1902, p. 228.

"Little shiny, black, briefly flavous pubescent on the upper side. In the ♀ the head is but little densely granulate, the clypeus and genæ strongly but sparingly rugose-punctate, the punctures intermixed with smaller ones, clypeus deeply excised, frontal part arcuately carinate, vertex provided with a somewhat long, little raised, strongly arcuate carina situated far beyond the hind edge of the eyes; prothorax sparingly granulate, arcuate in the centre of the median part in the ♀, sides hardly sinuate behind, base marginate; elytra broadly striate, intervals plane and with two series of granules; pygidium but little densely granulate.

Length 6 mm.

Hab. Southern Africa (collected by Fritsch).

Resembles the ♀ of *O. fritschi*, but differs by the frontal part of the head without tubercle, the vertex with a moderately long strongly arcuate carina situated very far back beyond the hind edge of the eyes, the median projection of the prothorax, which is a little wider, and the more closely set granules in the intervals of the elytra."

ONTHOPHAGUS LAMNIFER, d'Orbign.,
Ann. Soc. Ent. Fr., lxxi., 1902, p. 229.

Little shiny, black, sometimes with the head and prothorax bronze-green, or with the apex of elytra rufescent, briefly flavous pubescent on the upper side; head asperate punctate, clypeus deeply excised; in the ♂ the frontal part is not carinate, and the vertex is produced into a long, broad, reclining lamina arcuately emarginate at apex, and corniculate on each side and minutely tuberculate at middle before the apex; in the ♀ the frontal part is arcuately carinate, the vertex with a strongly arcuate carina and dentate on each side a little past the eyes; prothorax sparingly granulate, abruptly declivous and almost smooth in the centre in the ♂, briefly and arcuately carinate in the ♀, sides very slightly sinuate behind, and indistinctly so near the anterior angles, base marginate; elytra

broadly striate, intervals plane, sparingly granulate; pygidium sparingly granulate or sub-minutely granulate punctate.

Length 5–5½ mm.

Hab. Transvaal.

Allied to *O. fritschi*, but very distinct owing to the lamina of the vertex of the ♂ bearing a tubercle which is situated much further behind, near the extremity of the lamina; in the ♀ the vertex bears a carina dentate at each end, without a tubercle in the centre, and situated between the anterior edge of the eyes.

ONTHOPHAGUS IMMUNDUS, Boh., Catal. i., p. 220.

O. vitulus, Har. *nec* Fabric., l.c., p. 220.

I placed *O. immundus*, Bohem. (loc. cit.), in synonymy with *O. vitulus* Fabric. *O. vitulus*, described by Fabricius in his Suppl. Est. Syst., 1798, p. 32, however, is described from India, and the name given by Boheman must be kept for the South African species. The character given to it by d'Orbigny (Ann. Soc. Ent. Fr., 1902, p. 235), viz., vertex bearing "in both sexes" a lamina prolonged into a horn at each end, is erroneous.

ONTHOPHAGUS VERSUTUS, Py., Catal. i., p. 214.

O. ocellatus, d'Orbign., Ann. Soc. Ent. Fr., lxxiv., 1905, p. 504.

ONTHOPHAGUS DEPRESSUS, Har. Coleopt., Heft. viii., 1871, p. 116.

O. laceratus, Pér. *nec* Gerst., Cat. i., p. 236.

NEW SPECIES OF *ONTHOPHAGUS*.

By D'ORBIGNY.*

ONTHOPHAGUS AMPLICORNIS, n. spec.

Black-bronze or greenish; the elytra sometimes reddish, upper side with a very short pubescence all over. Epistoma rounded, frontal part without carina or with a very fine one only, vertex with two horns very broad at the base, reduced at times to two large tubercles and having a small median tubercle situated a little more forward (♂); the vertex entirely simple ♀; prothorax with the punctuation uniformly simple, moderately strong and close, the

* d'Orbigny's descriptions will be given in full in the Annales de la Société Entomologique de France for 1908.

anterior part with a wide and deep depression in the ♂; the sides sinuated near the posterior angles, base without any distinct fold at least on its sides; intervals with somewhat large slightly rasp-like and moderately closely set punctures.

Length 3½–4 mm.

Hab. Southern Rhodesia (Salisbury).

H. d'Orbigny.

ONTHOPHAGUS NUDUS, n. spec.

Black, shiny, upper side glabrous. Epistoma narrowly truncate and hardly visibly sinuate in the centre, frontal part without carina, vertex with only a slight trace of a short and straight carina situated slightly behind the middle of the eyes bent at right angles at each end and obliquely prolonged forward on each side between the frontal part and the temples. Prothorax with the punctuation simple uniformly fine and close, sides hardly sinuate near the posterior angles, base without fold. Intervals of elytra with a uniform, very fine, simple and moderately close punctuation.

Length 3 mm.

Hab. Natal (Malvern).

H. d'Orb.

ONTHOPHAGUS MARSHALLI, n. spec.

Shiny black, head and prothorax black with a slight bronze tinge, upper side with a short erect pubescence, which is, however, somewhat reclining on the elytra. Epistoma broadly and somewhat deeply scooped out, frontal part without carina or with a very short trace of carina (♂), or with a strong arcuate carina (♀); vertex with a somewhat strong, straight, or nearly straight carina situated in a line with the anterior border of the eyes or slightly behind that line. Prothorax with the punctuation simple, somewhat large, little closely set, becoming closer and somewhat rugose on the anterior half of the sides; the anterior part bears a small conical tubercle or a very small callus, the sides are not sinuate near the posterior angles or hardly so, the base has no fold. Intervals of elytra with remote granules.

Length 3–3⅕ mm.

Hab. Transvaal (Waterberg Distr.); Southern Rhodesia (Salisbury, Bulawayo); Damaraland (Otjosondu).

H. d'Orb.

ONTHOPHAGUS FUNGICOLA, n. spec.

Head and prothorax bronze or bronze-green, the prothorax spotted with testaceous on the sides or at least along the anterior angles;

elytra testaceous with the juxtasutural interval and the epipleuræ black, and having a black transverse band situated slightly past the middle; pygidium either entirely testaceous, or partially or entirely black, upper side with a very short pubescence. Epistoma slightly sinuate, frontal part without carina or with only a trace of it (♂), or with an arcuate carina (♀); vertex with a small conical horn slightly in front of a line drawn between the median part of the eyes (♂), or a short, straight carina (♀); prothorax with the punctuation simple, uniformly large and close, the anterior part (♂) sometimes slightly depressed in the centre, the sides sinuate near the posterior angles, the base with a fold. Intervals of elytra with fine, moderately close granules.

Length 4–5 mm.

H. d'Orb.

This species was found living on fungi. *Onthophagus panoplus* Bat. has the same habit.—L.P.

ONTHOPHAGUS NÆVULIGER, n. sp.

Head and prothorax obscure bronze; elytra testaceous with the juxtasutural interval and the epipleura black, and each elytron with a small black spot situated towards the hind third part of the length on the 2nd and 3rd intervals, a very small one on the humeral callus, another very small one before the apex, and a narrow longitudinal band situated on the two posterior thirds of the lateral interval; pygidium bronze-black. Upper side with a yellow pubescence except the elytra, which bear very short black setæ. Epistoma rounded, frontal part without carina; vertex with a large transverse tubercle situated between the eyes. Prothorax uniformly covered with a large simple punctuation very closely set and hardly rugose; sides sinuate near the posterior angles, base with a fold. Intervals of elytra with fine but little closely set granules.

Length 7 mm.

Hab. Southern Rhodesia.

H. d'Orb.

ONTHOPHAGUS POLITISSIMUS, n. sp.

Head and prothorax black; elytra pale testaceous with the juxtasutural interval and the epipleura entirely black; pygidium black. Upper part nearly entirely glabrous. Epistoma but little deeply scooped, frontal part with an arcuate carina, vertex with a straight carina situated in a line with the hind border of the eyes. Prothorax completely smooth except for a few fine very scattered punctures on the sides; the sides are regularly curving between the anterior angles

and the base without having any posterior angle, or being sinuous; base slightly folded. Intervals of elytra quite smooth.

Length $4\frac{1}{2}$–5 mm.

Hab. Southern Rhodesia (Salisbury).

H. d'Orb.

ONTHOPHAGUS RASIPENNIS, n. spec.

Head and prothorax black; elytra, epipleura included, entirely light testaceous except the juxtasutural interval, which is for the greatest part black; pygidium black. Upper side nearly entirely glabrous. Epistoma narrowly scooped, frontal part with an arcuate carina, vertex with a nearly straight carina situated a little in front of the anterior edge of the eyes. Prothorax smooth or very sparsely punctulate, but with moderately large, more or less numerous punctures scattered on the sides, and at times other punctures on the disk; the sides not sinuate near the posterior angles, or hardly so; base with a fold. Intervals of elytra entirely smooth or hardly visibly punctulate.

Length $3\frac{1}{5}$–$4\frac{1}{5}$ mm.

Hab. Orange River Colony; Transvaal (Leysdorp, Waterberg, Pretoria Distr.); Southern Rhodesia (Bulawayo, Matopos).

H. d'Orb.

I cannot distinguish this species, which I have received from nearly all the localities here mentioned, from *O. pallidipennis*, Fähr.

L. P.

ONTHOPHAGUS PRODUCTICOLLIS, n. sp.

Very near *O. verticalis*, Fähr., differs in the prothorax and the juxtasutural interval being not green-bronze, but brown-bronze; the head has a fine frontal carina situated a little in front of the centre, and a strong carina placed far behind the centre (instead of having only a strong carina situated towards the middle or only slightly further back); the median projection of the prothorax goes further forward and is very regularly arcuate in the anterior part (instead of being strongly sinuate in the centre); the size is also a little larger.

Length $7\frac{1}{2}$–9 mm.

Hab. Natal (Estcourt).

H. d'Orb.

I do certainly not think that this will prove a distinct species. It is even doubtful to me if it should rank as a variety of *O. verticalis*. I have examined more than two hundred examples from Estcourt, and they all merge into *O. verticalis*. L. P.

ONTHOPHAGUS AMŒNUS, n. sp.

Head and prothorax metallic green, the posterior part of the prothorax slightly bluish; elytra light testaceous and having on each side a group of three small black spots disposed in a triangle before the middle, and a black, transverse, very irregular fascia situated towards the posterior side; pygidium green. Upper side with an entirely pale yellow pubescence. Epistoma rounded; frontal part with traces of an arcuate carina; vertex with a somewhat short straight carina situated a little past the middle of the eyes. Prothorax uniformly covered with fine, very closely set granules, the anterior part with two small, distinctly separated tubercles; sides sinuated near the posterior angles, base without fold.

Length 5½–6 mm.

Hab. Southern Rhodesia (Bulawayo).

H. d'Orb.

ONTHOPHAGUS NIGROPUBENS, n. sp.

Black, upper side completely clothed with a black pubescence. Epistoma sub-truncate; frontal part with an arcuate carina, vertex with a strong straight carina strongly dentate in the centre, angular at each end, situated a little in front of the posterior edge of the eyes. Prothorax densely granular on the anterior half, and having on the posterior half a large, but little closely set punctuation asperous towards the centre, simple towards the base, the anterior part has a long, transverse ridge; the sides are strongly sinuate near the posterior angles, the base is without fold.

Length 11½ mm.

Hab. British Bechuanaland.

H. d'Orb.

ONTHOPHAGUS BINODOSUS, n. sp.

Black, nearly glabrous. Epistoma rounded; frontal part without any trace of carina, vertex with a strong and somewhat long arcuate carina situated between the centre of the eyes. Prothorax with a moderately large, moderately close and simple punctuation, except that on the sides which is slightly asperous, the anterior part bears two moderately large tubercles distant from each other; the sides are strongly sinuate towards the posterior angles, the base is indistinctly folded. Intervals of elytra with uniform moderately closely set granules.

Length 6½ mm.

Hab. Southern Rhodesia (Bulawayo).

H. d'Orb.

ONTHOPHAGUS ASPERICEPS, n. sp.

Very small, black, with the elytra entirely testaceous; upper side clothed with a short pubescence. Epistoma rounded, frontal part with an arcuate carina situated in front of the central part of the head, vertex entirely simple. Prothorax covered with a moderately large punctuation very closely set and consisting of punctures about equal in size, but some are very shallow and the others very deep; this punctuation is simple except that of the anterior half of the sides, which is indistinctly asperous; the sides are hardly sinuate near the posterior angles, the base is folded. Intervals of elytra with somewhat closely set granules.

Length $2\frac{1}{5}$ mm.

Hab. Damaraland (Okahandja).

H. d'Orb.

ONTHOPHAGUS BURCHELLI, n. sp.

Head and prothorax greenish blue, the remainder of the body black greenish, upper side with a short yellow pubescence except the pygidium, which is covered with long white setæ. Epistoma bluntly curved or hardly sinuate, frontal part with an arcuate carina, vertex with a strong, straight carina situated between the centre of the eyes; prothorax granulated, the granules somewhat remote on the posterior part of the disk, somewhat closely set in front and on the sides, the anterior part with a strong median projection divided at the top by two small tubercles; sides sinuate near the posterior angles, base with a fine border; intervals of elytra with remote granules.

Length 6–$7\frac{1}{2}$ mm.

Hab. Cape Colony (Griqua Town), Damaraland (Windhoek, Okahandja).

H. d'Orb.

ONTHOPHAGUS CONVEXUS, n. sp.

Very small, black, with the elytra completely testaceous; upper side with a short pubescence. Epistoma rounded, frontal part with an arcuate carina situated in front of the central part of the head, vertex simple. Prothorax covered with a moderately large, very closely set punctuation consisting of punctures nearly equal in width, but the ones very shallow, the others very deep; this punctuation is simple, except on the anterior half of the sides which is indistinctly asperous; the sides are hardly sinuate near

the posterior angles, and the base is folded. Intervals of elytra with moderately closely set granules.

Length $2\frac{4}{5}$ mm.

Hab. Damaraland (Okahandja).

H. d'Orb.

ONTHOPHAGUS INERMICOLLIS, n. sp.

Brownish red, very dark on the head and prothorax, somewhat light on the rest of the body; upper side with a uniformly very short pubescence. Epistoma rounded, frontal part with a strong, arcuate carina, vertex with a strong and long carina of uniform height shaped as a broad, reversed bow in its median part, straight or a little curved backwards at the end, and situated a little in front of the posterior edge of the eyes. Prothorax entirely covered with close granules, except in the centre of the basilary part, which is but little densely granular; the anterior part without any traces of projection or of depression; sides strongly sinuate near the posterior angles, base with a fold.

Length $7\frac{1}{2}$–8 mm.

Hab. Southern Rhodesia (Salisbury).

H. d'Orb.

ONTHOPHAGUS ACUTUS, n. spec.

Extremely closely allied to *O. bituberculatus*, Oliv.; differs from it merely through the punctuation of the prothorax which consists of uniformly granulose, closely set punctures (instead of ocellated punctures mixed with remote granulose ones), the pygidium set with fine remote granules (instead of moderately large ocellated, closely set, and very superficial punctures), and the still shorter pubescence. It is also very closely allied to *O. depressus*, Har.; it differs from it by the partly testaceous elytra; the punctuation of the prothorax, which consists of equal punctures; the pygidium, which is granulated (instead of being covered with unequal ocellated punctures); the prothorax of the ♂ has on the disk two gibbose projections separated by a depression; the size is also larger.

Length 7–$9\frac{1}{2}$ mm.

Hab. Damaraland (Salem, Okahandja), Lake N'Gami; Caffraria; Tanganyika; Nyassaland.

H. d'Orb.

It is this species which Boheman noticed from Damaraland (Öfv. Vet. Ak. Förh., 1860, p. 112) under Olivier's name. I took my Natal examples to be identical with *O. laceratus*, Gerst., whereas they are pronounced to be *O. depressus*, Har. I feel absolutely certain that passages bridging over the extremely small differential characters of

these so-called species will be found and that the three will be again united at most as local races.

L. P.

SUB-GEN. PROAGODERUS, Lamb.
Not. Leyd. Mus., v., 1883, p. 14.

ONTHOPHAGUS (PROAGODERUS) GIBBIRAMUS, d'Orb.

O. rarus, Klug, Péring. *nec* Guér.-Menev., Cat. i., p. 250.

According to d'Orbigny, both Klug and I were mistaken in the identity of this species. *O. rarus*, Guér.-Menev., is confined to Senegambia and the Guinea coast.

ONTHOPHAGUS (PROAGODERUS) PLATO, Bat., Cat. i., p. 251.
d'Orbigny, Ann. Mus. Genov., xli., 1904, p. 327.

Judging from the description and also the habitat of this species, I placed it in synonymy with *O. furcifer*, Boh. d'Orbigny, however, who has been able to compare the type, a single ♂ example, with *O. furcifer*, as identified by me, says (Ann. Mus. Genov., xli., 1906, p. 327) that *plato* differs from *furcifer* in having the upper part of the body opaque instead of slightly shiny, the granules of the prothorax are much finer, the base is more angular in the centre, the apex being almost sharp instead of not plainly rounded. In the great development of the ♂ *plato* differs from *furcifer* by the shorter, almost tuberculiform frontal ridge, the vertex bears a carina slightly dentate in the centre, and on each side, below the eyes, the horns emit a ramus in the inner side towards the anterior third part, instead of having in the middle a non-dentate ridge emitting a long ramus on each side below the eyes, and the horns being simple; on the prothorax the anterior depression is little pronounced and as densely granular as the rest of the superficies instead of being deep and little densely punctate; the two discoidal tubercles are much weaker and situated somewhat further back, and the longitudinal median furrow extends over the whole length instead of the posterior half.

Hab. Damaraland.

ONTHOPHAGUS (PROAGOD.) NASIDENS, d'Orbign.
Ann. Soc. Ent. Fr., lxxiv., 1905, p. 510.

"Little shiny, sub-æneous black, very briefly pubescent on the upper side. In the female the head is sub-strongly, closely granulate, the clypeus is produced in the middle into a tooth, the frontal part

bears a short ridge, the vertex a transverse, tri-dentate lamina situated a little behind the eyes; prothorax closely, moderately finely granulate, depressed in front (♀) and bearing a little past the third anterior part a minute longitudinal tubercle; the sides are slightly sinuate behind, the base angularly produced in the middle but little distinctly emarginate towards the sides, but more distinctly so towards the median part; elytra not longer than the prothorax, very finely striate, intervals plane, closely and finely granulate; pygidium finely, but little densely granulate.

Length 13 mm.

Hab. Portuguese East Africa (♀).

Resembles in shape and in granulation the ♀ of *O. panoplus*, Bat.; differs by the clypeus, which instead of being "ogival" is produced into a small tooth; the disk of the prothorax bears a small longitudinal tubercle instead of a strong transverse carina divided into two tubercles, and the granules of the elytra are very closely set instead of being remote."

I am not aware of this species having been, as yet, recorded within the South African limit.

ONTHOPHAGUS (PROAG.) RECTEFURCATUS, Fairm.

Plate XLVIII., figs. 19, 20.

Ann. Soc. Ent. Fr., lx., 1891, p. 237.

O. porrectus, Fähr., *nec* Reich., Col. Caffr., ii., p. 263.

Dark blue or bluish green, moderately shiny, glabrous, antennæ fuscous.

Male: Clypeus obtuse and slightly sinuate in front, covered with deep asperous, closely set punctures with the walls somewhat transversely plicate, anterior frontal part with an arcuate carina reaching from one gena to the other; immediately behind it is an upright lamina nearly equal in height to half the width, and each angle of which is produced into a long, incurved horn bearing at about one-third of the length an inner vertical spur or ramus, the length of this horn reaches to about two-thirds of the length of the prothorax, the central part of the lamina supporting the horns is arcuately but not deeply emarginate, the whole frontal part of the same lamina is very closely pitted; the prothorax has a very deep, median anterior excavation reaching closely to the lateral fossa, and surmounted in the centre by a compressed laminate horn, somewhat ampliate towards the tip, and rounded there, projecting forward, but neither horizontally nor vertically, and of about the same length as the posterior part of the prothorax, which is somewhat closely aciculate

punctate, narrowly but slightly impressed longitudinally behind with the centre of the base projecting.

Female· Clypeus arcuate but projecting in the centre of the curve, not sinuate there, roughly and irregularly pitted with the intervals or walls very plainly but not continuously carinate; the anterior frontal carina is quite straight, thicker and more raised than in the ♂; on the vertex or close to it is another sharp, short carina, and between the two, two erect, slightly slanting backwards, sub-vertical horns, slightly shorter than the whole head, thick at the base and gradually tapering towards the apex, the vertex is quite smooth in the centre; the prothorax is covered with granules for about two-thirds of the length, and with simple punctures in the remaining posterior part, both granules and punctures being closely set; the anterior part is sloping, and on the top of the somewhat declivous slope is a median smooth ridge the apex of which slants forward. In both sexes the elytra, which are at their greatest width not broader than the prothorax at its widest part, are very narrowly and shallowly sub-geminate punctate; the intervals, the two juxta-sutural ones of which are narrower than the other three dorsal ones, bear several irregular series of very shallow, simple punctures.

Length 13–14 mm.; width 7½–8 mm.

This species was described on female examples from East Central Africa. It is recorded from N'Gamiland by d'Orbigny. My examples come from Southern Rhodesia (Sebakwe). There is, I think, little doubt that Fåhræus (Insecta Caffr., ii., p. 263) mistook this species for *O. porrectus*, Reich., to which it is certainly very closely allied.

ONTHOPHAGUS (PROAG.) TERSIDORSIS, d'Orbign.

Ann. Soc. Ent. Fr., lxxi., 1902, p. 281.

"Totally shiny, head and thorax bluish green, elytra brick-red, fuscous and greenish blue at the base, suture green, sides and apex metallic green; pygidium metallic green or greenish testaceous, clothed with long pale setose hairs in the anterior part of the head, glabrous on the prothorax except on the anterior part and on the sides which are pubescent, very briefly fuscous setose on the elytra, apex and pygidium with long, pale hairs. Head granulate, clypeus rounded, in the ♂ the frontal part is not very indistinctly carinate, and the vertex is armed with a long, erect and slightly arcuate horn, occasionally short; in the ♀ the frontal part is carinate, and the vertex bears an inversely arcuate carina angular on each side and situated between the anterior margin of the eyes; prothorax smooth, sparsely asperate punctate in front, granulate laterally,

not sulcate longitudinally, produced in the ♂ in a large tooth on each side behind the anterior angles, minutely bi-tuberculate on the disk before the median part, and depressed on each side between the tooth and the tubercle, sometimes quadri-tuberculate in front with the median tubercle separated from the external ones by a depression ; in the ♀ it is tuberculate on each side in front but more towards the sides, the median part being broadly angularly arcuate ; in both sexes the sides are strongly sinuate behind, and the base, which is finely marginate on each side, is expanding in the centre and angularly produced there ; elytra minutely striate with the intervals plane, simply and moderately densely punctate, the third and the fifth are narrower than the others, sub-convex and sparsely punctate : pygidium strongly punctate.

Length 11½–13 mm.

Hab. Natal.

This species is allied to *O. sub-extensus*, Kolb. ; *O. lugendæ*, Bat. , *O. insignis*, Pér. ; and *O. lanista*, Cast.

ONTHOPHAGUS (PROAG.) TUBERCULICOLLIS, Casteln.
Hist. Nat. Coleopt., ii., 1840, p. 84.

It is very doubtful if the habitat "Cape of Good Hope" given by Castelnau is a true one. d'Orbigny records the species from Abyssinia.

ONTHOPHAGUS (PROAGOD.) AUREICEPS, d'Orbign.
Ann. Soc. Ent. Fr., lxxi., 1902, p. 294.

"Shiny, metallic green, head golden, median posterior part of the prothorax dark blue with a violaceous tinge, suture of elytra and apex of the same greenish ; upper side briefly flavous pubescent, disk of prothorax glabrous, elytra very briefly nigro-setose. Head granulate, rounded in front, with a nearly straight transverse ridge, and having a moderately raised longitudinal smooth line extending from the ridge to the posterior margin ; between the eyes there is, on each side, a minute but sharp tubercle which is, however, sometimes indistinct : prothorax granulate towards the sides, smooth in the centre from the base to the anterior margin, this smooth part is broad on the disk, much narrower and sub-depressed longitudinally in front, the depression being punctate ; sides sinuate behind, margin not distinctly marginate, flattened and angularly produced ; elytra not broadly striate, intervals plane, strongly and moderately densely asperate punctate, but sparsely so in the anterior part towards the suture ; pygidium strongly and nearly simply and sparsely punctate.

Length 8–10½ mm.

In the ♂ the spur of the anterior tibiæ is slightly dilated and truncate at tip, in the ♀ it is produced into a tooth directed inwards.

Hab. Mozambique (Delagoa Bay)."

ONTHOPHAGUS (PROAGOD.) DIVES, Har.
Mitth. Münch. Ent. Ver., i., p. 98.

O. deyrollei, Raffr., Rev. and Mag. Zool., 1877, p. 315, pl. i., fig. 1.
O. optivus, Pér., Cat. i., p. 255.

Recorded originally from Nyassaland; occurs in German and British Central Africa. I have received it from Mozambique (Beira), and also from North-Western Rhodesia (Kafue River, and Feira).

ONTHOPHAGUS (PROAGOD.) UNIDENS, Quedenf.
Berl. Ent. Zeitschr., vi., 1892, p. 29.

O. suspectus, Péring., Catal. i., p. 254.

This species was originally described from Angola.

ONTHOPHAGUS (PROAGOD.) GEMMATUS, Pér., Cat. i., p. 256.

O. iricolor, d'Orb., Ann. Soc. Ent. Fr., 1902, p. 298.

This synonymy is indicated by d'Orbigny. His specimens came from Tanganyika. I have recorded this species from North-Western Rhodesia (Kafue River).

ONTHOPHAGUS (PROAGOD.) ALCYON, Klug, Cat. i., p. 193.

Recorded from German East Africa.

ONTHOPHAGUS (PROAGOD.) BICALLOSUS, Klug, Cat. i., p. 252.

Recorded from British East Africa.

ONTHOPHAGUS (PROAGOD.) MARGINIDENS, d'Orbign.
Ann. Soc. Ent. Belg., xlviii., 1904, p. 220.

" Shiny, head and prothorax metallic green; elytra red, testaceous with a green sheen, pygidium green, antennal club testaceous; upper side glabrous, anterior part and sides of prothorax, sides, and apex of elytra and pygidium briefly pallid pubescent; head entirely granulate; clypeus produced in the centre into a tooth, and

emarginate on each side, frontal part not carinate, vertex tuberculated between the eyes; prothorax closely asperate punctate, granulate in the anterior declivity and towards the sides which are strongly sinuate behind; the base, which is angularly produced behind, is entirely marginate; elytra finely striate, intervals almost plane, moderately densely and strongly rugose punctate; pygidium sub-densely asperate punctate.

Length 8½ mm.

Described from one example, probably a ♂.

Hab. Southern Rhodesia (Victoria Falls)."

ONTHOPHAGUS (PROAGODERUS) QUADRITUBER, n. sp.

Head and prothorax metallic green, posterior part of the prothorax usually tinted with obscure blue in the centre; elytra testaceous with a brownish tinge and with the juxtasutural stria metallic green; pygidium light greenish bronze. Epistoma rounded, frontal part without ridge or with a very short one (♂), with a very angularly arcuate ridge (♀); vertex with a horn that is usually very long, regularly arcuate, strongly gibbose beneath a little before the middle (♂); vertex with a carina, straight or sometimes slightly arcuate backwards in its median part (♀). Prothorax more or less broadly smooth in the centre along the whole or nearly the whole of the length (♂); on about two-thirds of the length behind (♀); the punctuation of the remainder of the surface is large, asperous except on the sides (♂), and moderately granular, the anterior part and a broad space on the sides (♀) granular; the anterior part in the ♂ bears two large teeth situated nearly behind the anterior angles; the discoidal part has two large dentiform tubercles situated at about the anterior third part of the length and divided by a moderately large depression turning behind into a longitudinal furrow reaching the base; in addition there is on each side a somewhat strong depression between the tubercle and the tooth; in the ♀ the anterior part has a strong median projection ogival at tip, and on each side a moderately large tubercle; the sides are strongly sinuate near the posterior angles, the base has a very narrow fold on the sides, and expands broadly into a lamina in the centre. Intervals of elytra plane, the punctuation simple, close and moderately strong.

Length 10–13 mm.

Hab. Zambesi (Tschinde); Mozambique (Maputa).

H. d'Orb.

GEN. MILICHUS, Catal. i., p. 274.

MILICHUS RHODESIANUS, Péring.,
Plate XLVIII., figs. 16, 17,
Ann. S. Afric. Mus., iii., 1904, p. 222.

Male: Light bronze, briefly pubescent, not much shiny, maculated irregularly with darker bronze on the prothorax, which has in addition three bright shiny patches in the anterior part at the top of the declivity; the elytra are occasionally testaceous, irregularly tesselated with bronze, antennal club flavescent; clypeus produced diagonally laterally, deeply and broadly emarginate in front with the angles of the emargination distinct, but not sharply reflexed; the first clypeal carina is triangular, sharply raised, and the median longitudinal keel is very short and does not connect the first clypeal one with the highly raised, sub-arcuate second clypeal carina which overhangs slightly the clypeus, and reaches on each side the inner angle of the genæ, the anterior margin of which is also carinate, but not as highly, and along the base of the frontal part there is an interrupted, slightly raised line with occasionally a minute tubercle in the centre above it; prothorax declivous in front in the male, not carinate above the declivity but having on each side of it a depression edged by a short transverse ridge set above the shiny space, it is not much ampliated laterally, although it is broader than long, the hind angles are rounded, the basal margin has no fold; it is covered in the median discoidal part by deep, round punctures, the slightly raised intervals of which are very narrow, these punctures are slightly wider on the sides than on the disk; elytra longer than the prothorax and about equally broad, plainly striate with the intervals nearly plane and filled with closely-set granules; pygidium nearly as broad as long, deeply and closely punctate, the intervals separating the punctures forming a sort of reticulation near the basal part; metasternum very closely punctate; inner spur of anterior tibiæ nearly straight.

This species differs from *M. apicalis*, Fähr. chiefly by the more highly raised and retuse prothorax.

Length 6–7 mm.; width 4–4½ mm.

Hab. Southern Rhodesia (Sebakwe).

MILICHUS APICALIS, Fähr., Catal. i., p. 274.

This species has a very wide range in Africa. d'Orbigny records it from the Galla country, British East Africa, Old Calabar, French Congo, and Angola. I have it from Natal and Ovampoland.

Gen. PHALOPS, Erichs., Catal. i., p. 266.

Phalops vanellus, Lansb., Catal. i., p. 267.

I placed this species in synonymy with *P. ardea*, Klug. d'Orbigny (Ann. Soc. Ent. Fr., 1902, p. 245) says that although closely resembling each other these two species are very distinct. It is probable that the habitat given by Lansberge is erroneous, because all the examples recorded by d'Orbigny are from the West Coast of Africa, from Senegambia to Ashanti. I have this species from the Upper Senegal River.

Phalops prasinus, Erichs.,
Wiegm., Arch. f. Naturg., i., 1843, p. 232.

P. adspersipennis, Boh., Catal. i., p. 268.

d'Orbigny places these two species in synonymy, and records the species from the Lower Congo (Banana), Angola, Loango, and Benguella. It occurs in Damaraland (Karibib).

Phalops dregei, Har., Catal. i., p. 268.

P. congenitus, Pér., loc. cit., p. 270.

I have lately recorded a green variety of this species from the Cape Colony (Humansdorp).

Phalops whittei, Har., Catal. i., p. 268.

P. dregei, Pér., *nec* Har., Catal. i., p. 268.
P. boschimanus, Pér., loc. cit., p. 268.

Phalops euplynes, Bat., Catal. i., p. 247.

P. rufosignatus, Lansb., Catal. i., p. 273.

Phalops smaragdinus, Har., Catal. i., Heft xiv., 1875, p. 138.

P. tarsatus, Pér., Catal. i., 270.

This species was originally described from Southern Abyssinia. The only intervening locality recorded until now is Zanzibar.

NEW SPECIES OF *PHALOPS*.

By D'Orbigny.

Phalops densegranosus, n. sp.

Very near *P. flavocinctus*, Kl., differs by the nearly opaque upper side, the elytra which are brown with a slight bronze tinge, a little

lighter on the sides but without a distinct testaceous band, the much shorter pubescence on the pygidium, the frontal carina, which is not straight or nearly so, but plainly arcuate, the vertex with a short but strong carina nearly straight and slightly sinuate on the top edge, the prothorax and the intervals of the elytra completely and more densely granulate, the granules of the prothorax regularly rounded on the disk, and the metasternum very plainly punctured, instead of being nearly smooth, especially on the posterior part.

Length 8·5 mm.

Hab. Great Namaqualand.

H. d'Orb.

PHALOPS PYROIDES, n. spec.

Coppery red, sometimes with a greenish tinge turning vaguely into metallic testaceous on the sides of the elytra; pygidium greenish coppery. Very near *P. dregei*, Har.; differs by the elytra being metallic instead of brown or testaceous; the pubescence of the pygidium is much shorter; the disk of the prothorax is densely provided with a mixture of large, but little closely-set granules and of numerous much smaller granules, instead of moderately large and moderately remote granules; the intervals of elytra bear moderately fine and very densely-set granules with an admixture of numerous extremely fine punctures or granules, instead of being provided only with moderately fine and somewhat numerous granules; the lamina on the vertex (♂) is divided into two points which are distinctly dented at their base.

Length 9½–10 mm.

Hab. Damaraland (Okahandja; Windhoek).

H. d'Orb.

GEN. DIASTELLOPALPUS, Lansb.

DIASTELLOPALPUS ORBIGNYI, n. sp.

Plate XLVIII., figs. 1, 2.

Ann. S. Afric. Mus., iii., 1904, p. 224.

Male: Black, shiny, almost glabrous on the upper side, pectus, legs and under side of prothorax clothed with fulvous hairs, pygidium and abdominal segments with shorter sub-flavescent ones; antennæ yellow with the exception of the three basal joints which are piceous-red; clypeus broadly arcuate in front with the margin entire and reflexed, genæ hardly prominent, in the centre, in a line with the suture at the junction of the genæ there is a high, laminate, sharply and broadly triangular keel the moderately rounded basal angles of which are continued towards the frontal part as a sloping ridge set

at right angles with the clypeal carina and partly enclosing two deep impressions the separating wall of which is continued as a short median ridge reaching almost a transverse high laminate ridge set on the vertex, truncate at both ends, reaching the median part of the eyes and longer therefore than the clypeal which is widely separated from the genæ; the surface of the clypeus is strongly transversely plicate, the frontal part and the genæ roughly punctate; the prothorax is broader than long, almost vertical in front, and with the anterior angles much produced; it is deeply excavated on each side, *Copris*-like, while the central part of the apex projects as a broadly triangular ridge the outer angles of which are continued vertically also as a sharp ridge strongly dentate towards its median part, the lateral anterior excavation has a sharp, short tooth on the outer part close to the lateral smooth impression, the two lateral anterior excavations, and also the median space edged by the two vertical ridges are sparingly and not deeply punctate, on the upper part the anterior projection is granular, the sides scabrose, the posterior median part is not closely punctate, and the long hind depression along the sides and part of the carinate base is faintly punctate, there is no median smooth longitudinal line; elytra shorter than the prothorax and equally broad at their widest part, plainly striate, intervals deeply and closely punctate, each puncture bearing a very minute black hair, alternate intervals wider than the others; pygidium longer than broad, covered with punctures similar to those on the elytra, but bearing a much longer and fulvous hair.

Length 23 mm.; width 15 mm.

Hab. Southern Rhodesia (Umtali).

Gen. COPTORRHINA, Cat. i., p. 286.

Coptorrhina forcipata, Har.,
Mitth. Münich. Entomol. Ver., 1880, p. 149.

"Piceous black, head smooth, only sparsely granulate towards the anterior margin, clypeus strongly and sharply bidentate; prothorax finely and not densely punctate in the disk but more strongly and very densely towards the sides; elytra moderately shiny, intervals plane, punctulate, the external ones obsoletely tuberculated longitudinally in the centre, the ninth is almost cristate in the middle, and the eighth entirely so, but the crest is obliterated in the middle of the latter.

Length 10½ mm.

Hab. Cape of Good Hope.

Allied to *C. armata*, Bohem., but larger; differs by all the internal

intervals entirely non-tuberculate, while the external ones are obsoletely tuberculate."

GEN. PEDARIA, Cat. i., 277.

PEDARIA TAYLORI, Waterh.,
Ann. Mag. Nat. Hist., 1890, p. 375.

Dark bronze, only moderately shiny, antennæ and palps reddish flavescent, clypeus broadly and somewhat deeply emarginate, the genæ strongly projecting, the margins are setulose and the whole head is covered with deep, closely set punctures separated from each other by a narrow smooth line; prothorax twice as broad as long, nearly straight laterally, plainly convex in the dorsal part with the median anterior part produced into a conspicuous rounded knob-like tubercle, the surface is covered in front and in the anterior part of the tubercle by very closely-set punctures which from there to the base change into deep, sub-foveate ones separated by a very narrow, somewhat shiny wall; elytra not broader at the base than the base of the prothorax itself, but slightly ampliate rounded beyond the lateral sinuation, and rounded towards the apex, very convex, geminate striate, the striæ being deeply and broadly punctate, and the plane intervals bearing each a double row of juxtaposed, almost fossulate punctures not quite as broad as those of the posterior part of the prothorax.

Length 8–8½ mm.; width 4–4¼ mm.

Hab. Southern Rhodesia (neighbourhood of Salisbury, Plumtree).

The species was originally described from Lake Nyassa and Mombassa. It is easily distinguished from its South African congeners by the knob on the prothorax.

PINACOTARSUS, Har.,
Stett. Ent. Zeit., xxxvi., 1875, p. 454.

Heteroclitopus, Péring., Catal. i., p. 305.

GEN. HELIOCOPRIS, Catal. i., p. 316.

HELIOCOPRIS COLOSSUS, Bat.,
Coleopt., Heft. iv., 1868, p. 88.

H. antenor, Pér., *nec* Oliv., Catal. i., p. 316.

I was wrong in identifying this species as *H. antenor*, Oliv. It is, I think, undoubtedly Bates' species.

Heliocopris antenor, Oliv.,
Entom., i., 3, p. 97, pl. vi., figs. *a*, *b*.

var. *japetus*, Klug, Catal. i., p. 317.

The difference between *H. japetus*, Klug, and *H. antenor* is really very small; it consists in the clypeus (♂) being more deeply sinuate on each side of the anterior truncate margin, in the base of the same not being laterally in line with the genæ and in the frontal carina being plainly dentate in the centre and much more raised there than at the angles; on the prothorax there is on each side of the base a smooth space which occurs also in *H. japetus*, but is less punctate and therefore more shiny. But the shape of the genital organs of the ♂ is absolutely identical in both the so-called species, and *H. japetus* can thus be regarded as merely a slight varietal form of *H. antenor*.

Gen. CATHARSIUS, Cat. i., p. 323.

Catharsius sesostris, Waterh.
Proc. Zool. Soc., Lond., 1888, p. 86.

C. pylades, Pér., Catal. i., p. 332.

C. sesostris was originally described from Egypt. It is now known to occur in the Soudan, Senegal, Nyassaland, and Mozambique.

Catharsius vitulus, Boh., Catal. i., p. 334.

The range of this species is very great. I have seen examples (minor development) from Senegambia (Upper Senegal River).

Gen. COPRIS, Geoffr., Catal. i., p. 342.

Copris cælatus, Fabric.

C. victorini, Boh., Cat. i., p 354.

Copris orphanus, Guér., Cat. i., p. 350.

Mr. G. A. K. Marshall writes to me: "The type of *Copris neptis*, Reich., is in the British Museum, and they have also a specimen of *C. orphanus*, which Reiche had compared with Guérin's type; these are both clearly identical with your *C. macer* (Catal. i., p. 346), *C. neptis* being a small development of the male.

The synonymy of this species will thus be—

COPRIS ORPHANUS, Guér.

C. neptis, Reich. Catal. i., p. 350.
? *C. troglodytarum*, Roth. Catal. i., p. 350.
C. macer, Pér. Catal. i., p. 343–346.

COPRIS EVANIDUS, Klug, Catal. i., p. 350.

C. puncticollis, Boh., Catal. i., p. 350.
C. gracilis, Waterh., Catal. i., p. 350.

I give the synonymy of *C. puncticollis* with *C. evanidus* on H. Kolbe's authority.

COPRIS LATICORNIS, var. minor, Waterh., Catal. i., p. 348.

C. integer, Pér., *nec* Reich., Catal. i., p. 348.

The true *Copris integer*, Reich., has no relation whatever with *C. laticornis*, var. *minor* of Waterhouse. I was misled by a wrongly identified ♂ example.

COPRIS JACCHUS, Fabr., Catal. i., p. 358.

I have received several examples of this species from Senegambia (Upper Senegal River).

SUB-FAMILY APHODIINÆ.

GEN. APHODIUS, Illig. Cat. i., p. 374.

APHODIUS THORACICUS, Roth.,
Arch. f. Naturg., xvii., 131.

A large species. Oblong, depressed especially on the elytra, head and prothorax fuscous black, the latter with a somewhat broad flavescent lateral margin, elytra and under side luteous, head very weakly punctate, the punctures obliterated on the vertex, clypeus widely truncate in front and with a sharp triangular tubercle in the centre of the frontal part in the ♂, the frontal part simple in the ♀; prothorax as long as broad, and somewhat wider than the elytra and slightly retuse in front in the ♂, not so in the ♀, sub-parallel but slightly wider at the base than at the apex, depressed in the upper

side and covered with irregularly set punctures somewhat deep and more crowded laterally in the anterior part; scutellum extremely long and sharp, concave and sub-coriaceous; elytra somewhat depressed near the scutellary region, very finely striate punctulate, with the intervals plane and finely aciculate, the two outer striæ are of equal length, but are interrupted at a distance from the base nearly opposite the lateral sinuation, and the two preceding ones (sixth and seventh) reach only the humeral callus; pygidium finely punctulate, sparsely pilose; pectus very closely punctate, but the median part of the metasternum is quite smooth, the legs are almost impunctate except for a few setigerous punctures; anterior tibiæ strongly tri-dentate.

Length 13 mm.; width 6 mm.

This species, which inhabits Senegal and Abyssinia, was recorded by Boheman from the Orange River. My example is from Southern Rhodesia, Sebakwe. It is very closely allied to *O. senegalensis*, Klug., but the clypeus is more broadly truncate in front than in examples of the latter from Senegambia; in the ♂ the anterior part of the prothorax is not sub-excavate, the punctuation is broader, and the punctures are much more numerous on the prothorax.

Aphodius minatorius, n. sp.

Brick-red, somewhat shiny, glabrous, clypeus slightly infuscate, broadly emarginate in the centre from side to side, very oblique laterally towards the genæ, the latter very sharply triangular, projecting much, and conspicuously impressed on the upper side, in the centre of the head are three very plain tubercles disposed transversely and with the median one more developed than the others, the surface of both head and clypeus is very sparsely and weakly punctate; prothorax slightly narrower at the apex than at the base, and having in the anterior part a very shallow impression with two diverging very slightly raised and not very plain longitudinal areas, it is covered with plain simple punctures somewhat irregularly disposed and separated by an interval larger than their diameter, these punctures are getting more remote towards the central part; scutellum sharply triangular, nearly impunctate; elytra twice as long as the prothorax, deeply striate but the striæ not very distinctly punctate and the intervals plane, the seventh stria reaches the apex only of the humeral callus, and the eighth reaches short of the base by about one-fourth of the length, the ninth unites with the marginal below the humeral callus; anterior tibiæ tri-dentate and slightly crenulate above the teeth.

Hab. Southern Rhodesia (Sebakwe).

APHODIUS EXCULTUS, n. sp.

Head and prothorax piceous fuscous, the latter has a very broad, lateral pale testaceous band; the elytra are livid testaceous with two longitudinal lighter patches on each side of the base, the first one extending on the first and second intervals to about one-eighth of the length, the other, which is shorter, is at the humeral angle; long past the median part is a patch of similar colour extending on the second to fifth intervals, and continued longitudinally on the fourth and fifth; on the edge of this patch are three black elongated spots, two superposed on the fourth interval, and one situated on the fifth; clypeus only very slightly sinuate in front and with the genæ not projecting, simple, with the frontal sparsely punctulate but having in addition deeper and broader punctures, each bearing a long hair, and forming a regular transverse row along the vertex; prothorax nearly parallel laterally and covered with closely-set, subcontiguous sub-fossulate punctures bearing each a setose hair; scutellum sharply ogival; elytra nearly oblong but slightly broader from about one-fifth of the length than at or near the base, very narrowly punctulate striate, with the intervals convex, tectiform and having each a series of fine briefly setulose punctures in the centre; the eighth stria stops a little short of the base; anterior tibiæ tri-dentate, anterior tarsi short, very slender.

Length 5 mm.; width $2\frac{1}{4}$ mm.

In general appearance this species somewhat resembles *Lorditomæus deplanatus.*

Hab. Southern Rhodesia (Salisbury).

MACRORETRUS, n. gen.

Mentum and general facies of *Aphodius*, but the genæ do not project beyond the line of the eyes; it is distinguished by the shape of the elytra which do not cover the pygidium, the latter is not vertical, and is sharply triangular and often projects subhorizontally; the sexual differences are also very great. In the ♂ the inner spur of the anterior tarsi is very long, straight and laminate, the four basal joints of the intermediate tibiæ are extremely short and thickened, the fifth, which is as long as all the other four taken together, and is also thicker, has instead of claws two broad, laminate lobes the outer of which is spatuliform and impressed in the centre of the outer part, the inner lobe is somewhat hooked; the hind tarsi are normal, the basal joint being twice as long as the spur; in the female the inner spur of the anterior tibiæ and the intermediate tarsi are normal.

MACRORETRUS SINGULARIS, n. sp.

Black, shiny, antennal club fuscous, the pedicel flavous; prothorax with a small flavescent spot at the anterior angle; elytra fuscous black with two flavescent basal patches on each side and a transverse band of the same colour above the apex, but when the elytra are fuscous there are traces of a longitudinal band ascending laterally towards the outer basal patch; in some cases, probably immature examples, the flavescent colour has invaded nearly the whole surface except the suture; ♂ clypeus truncate in front with the angles rounded and the margin slightly reflexed, very vaguely punctulate, the frontal part simple; prothorax a little broader than long, ampliate rounded laterally, plainly sinuate towards the base, somewhat depressed on the upper side, closely and somewhat deeply punctulate except for a smooth longitudinal median space reaching from the apex to about the median part; scutellum very long, sharply triangular and punctulate at the base; elytra not quite twice the length of the prothorax, narrowly striate punctulate, with the intervals convex and impunctate, the seventh and eighth striæ reach nearly to the same distance under the humeral callus, the ninth is shorter than the eighth; the ♀ differs from the ♂ in the slightly less blunted anterior part of the prothorax; the punctures on the head, and especially on the prothorax, are deeper and cover the whole surface of the latter.

The livery is not unlike that of *A. cruentus*, Kl.

Length 3½–3⅘ mm.; width 1⅘–2 mm.

Hab. Southern Rhodesia (Sebakwe).

SUB-FAMILY TROGINÆ.

GEN. TROX., Cat. i., p. 452.

TROX MASSALIS, Har.

Mitth. Münch. Entomol. Ver., 1880, p. 156.

"Lateral margin of prothorax denticulate; elytra ampliated, strongly convex, sinuate on each side at the base and with the shoulders very acute, they have series of equal tubercles intermixed with small tubercles.

Length 15 mm.

Hab. Hereroland.

Shape of *T. varicosus*, the elytra highly convex, short and broadly ovate, the greatest width being in the centre; vertex with two dis-

tinct tufts; prothorax almost as that of *T. varicosus*, the hind part is, however, a little broadened, and higher, the hind angles are thence more blunt and surmount a little the shoulders; elytra at the base always distinctly sinuate close to the shoulders, these very sharp, almost tooth-like, the outer margin finely crenulate, with serrated small tubercles equal in size, and mostly consisting of from two to three adjacent little knobs having between them a single very small one; end of the prosternum transverse, the fore tibiæ with one tooth in the middle, and toothed above the same; first joint of antennæ black and with black bristles, the club a hoary grey, the other joints red-brown."

TROX PUSILLUS, n. sp.

A close ally of *T. rhyparhoides*, Har., but smaller; the shape of the clypeus and frontal part is the same but the ridges are blunter, and this applies also to those of the prothorax which bear at their disjuncted parts a small tuft of slightly flavescent squamose hairs, the two median costules are quite parallel, and they enclose a plain longitudinal raised line; on the elytra all the costæ are interrupted at short, equidistant spaces ending in a squamose subflavescent tuft, whereas in *T. rhyparhoides* the first two costæ are almost entire from the apex to long past the middle, and the two rows of foveæ in each interval are very shallow.

Length 6 mm.; lat. 3 mm.

Hab. Southern Rhodesia (Salisbury).

FAMILY GEOTRUPINÆ.

Key to the Genera.

Intermediate coxæ broadly separated; pygidium not covered by the elytra; scutellum very narrow, elongated, sunken .. .. *Athyreus.*

Intermediate coxæ contiguous; pygidium covered by the elytra; scutellum broad, ogival, not sunken .. .. *Bolboceras.*

GEN. ATHYREUS, McLeay,

Horæ Entomolog., i., 1819, p. 123.

The differences separating this genus from *Bolboceras* are those given above. As a rule the prothorax is more dehiscent, and the

elytra more deeply and roughly punctate with the intervals more convex or even tectiform, but it is the shape and position of the scutellum which characterises this genus, which, so far as I know, is represented in Africa by one species occurring in Somaliland, and by two in the South African Region.

ATHYREUS RHODESIANUS, n. sp

Pl. XLVIII., figs. 13, 14.

Black, shiny, antennæ pale flavous; underside clothed with a long, very dense, greyish flavescent pubescence; mandibles with two triangular lateral laminate processes on each side, apex of left one single, hooked, that of right bifid; labrum curved at apex, clypeus with a conical tooth at the very apex, straight there, the base of the conical tooth connected with the centre of the anterior apical carina, which is triangularly dentate on each side, and slants subobliquely to the base of the genæ, which are narrowly and sharply triangular with the apex reflexed; at the back of this ridge is a median, broad, fairly deep depression, the surface is coarsely subscabrose punctate, the punctures are not set close to each other, and each bears a short hair; prothorax strongly declivous and having a deep, anterior excavation reaching from the apex to about the median part, strongly sloping and edged on each side by a sharp ridge, truncate in front, and bi-sinuate in the upper part; on the sides and equi-distant from the lateral ridge of the anterior excavation and from the very vertical basal carinate part is a vertical slightly sinuate ridge beginning at about one half of the height and reaching the lateral margin; the median part of the apex is distinctly triangularly tuberculated, and from there to the base runs a narrow but deep sulcus, the posterior part is broadly depressed on each side of that median groove; the surface is covered with deep punctures, bearing each a small hair, these punctures are more closely set in the excavation and laterally, and on each side of the base there is above the margin an agglomeration of longer hairs; elytra not longer than the prothorax, deeply but somewhat irregularly striate punctate, with the intervals carinulate costate, each puncture in the striæ bears a minute greyish hair; pygidium closely and somewhat coarsely punctate and densely pubescent; abdomen aciculate; outer face of femora punctate but with the median part smooth; pectus very closely and deeply punctate; anterior tibiæ quadri-dentate.

Length 10 mm., width 5½ mm.

Hab. Southern Rhodesia (neighbourhood of Salisbury).

ATHYREUS DAMARA, Kolb.,

Annal. Soc. Ent. Belg., li., 1907, p. 31.

"Ferruginous brown, clothed with fulvous hairs, shiny; head plentifully granulate, labrum obtusely rounded in front, mandibles produced forward like a dorsal lamina, ridge of the epistoma transverse, high, bidentate, deeply sinuate before the teeth (of the mandibles), frontal part minutely callose in the middle, the anteocular genæ sending forth an acute reflex process; prothorax constricted laterally, everywhere closely granulate on the upper side, anterior margin bisinuate, the median lobe emitting a tooth, broadly excavate longitudinally in the median dorsal part, the outer margins of the excavation sinuose carinate, the carina tridentate on each side, interrupted behind beyond the second tooth, the bottom of the excavation very narrowly canaliculate longitudinally, the canalication edged on each side by a thin carinule; elytra slightly substriate, the striæ partly irregularly punctate, vanishing behind, the 1st (sutural), 5, 9, 13, 16 slightly convex, anterior tibæ 5-dentate outwardly, the intermediate pair entire, the hind ones transversely unicarinate.

Length 18–21 mm.

Hab. Damaraland (Lake Ngami)."

GEN. BOLBOCERAS, Kirb., Catal. i., p. 477

Key to the Species.

A5. Anterior tibiæ, 5-dentate.

a2. Prothorax deeply excavate in front.

♂ : Clypeus with an anterior transverse ridge with each angle raised in a somewhat long, truncate tooth; anterior part of the prothoracic excavation surmounted by two very long, closely set conical tubercles, another long tubercle in the posterior part .. .. *capicola.*

♂ : Clypeus with a frontal truncate tubercle; prothorax with three long teeth, two anterior, one median; dorsal part with a double excavation on each side between the three horns .. *iphicles.*

a1. Prothorax retuse and very deeply impressed in front.

Clypeus with a high median, transverse, short ridge; excavation of prothorax with two small tubercles and a lateral one on each side; punctures on the sides of the prothorax round, closely set .. .. *faustum.*

Clypeus with a median transverse tri-dentate ridge; anterior impression of prothorax somewhat shallow, upper edge smooth sinuate in the centre and limited by a very small tubercle on each side; punctures on the sides of the prothorax reticulate scabrose .. .. *hebes.*

Clypeus with a median and a lateral tooth on each side of the anterior frontal part; prothorax impressed rather than excavate near the apical margin, a smooth arcuate space above the impression; punctures on the sides round, not set very close to each other .. .. *disparile.*

A⁴. Anterior tibiæ 6-dentate.

a. Prothorax depressed on the anterior part.
Clypeus with an anterior frontal median tubercle triangularly raised on each side of the anterior part of the genæ, anterior impression of the prothorax, narrow, elongate, punctures moderately remote laterally .. .. *exasperans.*

Clypeus with three high, sharp teeth; anterior impression of the prothorax semicircular .. .. *indigum.*

A³. Anterior tibiæ 7-dentate.

*a*². Prothorax impressed in front.
Clypeus with a very minute tubercle on the edge of the clypeus, margin reflexed close to the genæ; impression of prothorax impunctate, punctures on sides round and only moderately closely set, a broad, smooth band along the whole base .. .. *matabele.*

*a*¹. Prothorax not impressed in front.
Labrum plainly carinate transversely in the centre, anterior frontal part with an arcuate ridge reaching from side to side, apex with a short, transverse ridge .. .. *sebakuense.*

A². Anterior tibiæ 8-dentate.
Prothorax not excavate; median frontal part with a short, transverse sub-bi-dentate ridge, angle of genæ slightly recurved .. *ambiguum.*

A¹. Anterior tibiæ 9-dentate.
Totally black; anterior frontal part with a triangular ridge dentate in the centre and on each side close to the genæ; apex with a long transverse ridge .. .. *nigrum.*

Bolboceras capicola, n. sp.,

Pl. XLVIII., figs. 7, 8, 9.

Male: Brick-red with the prothorax and tibiæ somewhat infuscate; antennæ brick-red; glabrous on the upper side, clothed with long, flavescent hairs underneath; labrum notched in the centre, at the base of the labrum is a vertical wall-like ridge extending from side to side, and the upper angle of which is produced into a vertical tooth as high again as the carina itself, the frontal part at the back of the ridge is almost parallel, only slightly wider than the ridge, and depressed from there nearly to the apex where there is a small, median tubercle, the surface is closely but somewhat obsoletely punctate; prothorax nearly retuse in front, and having there two

small excavations from which rise two conical processes set close to each other, in the posterior part of the prothorax and in a line with the space separating these processes is a longitudinal ridge reaching the base and having on each side a very deep depression, the surface is closely punctulate, and has a coriaceous appearance; elytra longer than the prothorax, finely punctate striate, with the punctures very shallow, the intervals are plane and vaguely aciculate; the underside and legs are aciculate punctate; the anterior tibiæ are 5-dentate outwardly.

This is the first species of *Bolboceras* found at the extreme end of South Africa. Its facies differs greatly from that of the other known South African species, and so does the shape of the genital clasps.

Length 17 mm , width 10 mm.

Hab. Cape Colony (Darling).

BOLBOCERAS IPHICLES, Kolbe,

Ann. Soc. Ent. Belg., li., 1907, p. 29.

Male: Brick-red, shiny, antennal club flavous; glabrous on the upper side, clothed underneath with long, light, fulvous hairs; labrum straight in front; clypeus sharply carinate, vertical and straight in front with the sides diagonally produced as far as the apex of the genæ, in the central part of the head is a truncate, sub-laminate tubercle equi-distant from apex and base, surface equally roughly punctate; prothorax with the median anterior part excavated at a short distance from the apex into two large, deep holes separated by a smooth ridge which is continued at the apex as a long acute tooth slanting slightly forward, the outer wall of the excavation being also produced on each side in a similar but more broadly triangular tooth, at the back of each of the anterior excavations is a sub-transversely arcuate narrower and shallower one separated from the former by a very narrow, sharp ridge, and abutting almost on the marginal groove; all the excavations are smooth, and the sides, outer part of teeth included, are coarsely punctate rugose, there is, however, a narrow, smooth band above the groove of the margin; scutellum impunctate; elytra narrowly but distinctly striate punctate with the intervals smooth, and the punctures somewhat fine and shallow; anterior tibiæ strongly 5-dentate outwardly.

Female: Head as in the ♂ and with a short, weakly, tri-denticulate frontal carina, instead of a tubercle; prothorax sloping in the anterior part, the upper part with a very weak transverse ridge about as wide as the head, a very shallow depression lower down on each side of it, limited outwardly by a distinct tuberculiform ridge,

the median part of the disk is more minutely but as roughly punctate as the sides, but there is a smooth band along the median part of the base, and the median anterior part is shiny and a little punctate.

My female example is much smaller than the ♂ (11 mm. × 7 mm.), and lighter red. Both examples at my disposal (♂ ♀) seem to be of a greater development than those on which Kolbe founded the species, but they come from the same locality (Okahandja in Damaraland), and I have no doubt that they are the same species.

Length 11–14½ mm., width 7–9¾ mm.

This species is, like *B. capicola*, easily distinguished from all its South African congeners by the shape of the thorax. It should precede *B. damarinum*, and it belongs to the same group.

Hab. Damaraland (Okahandja).

Bolboceras faustum, n.sp.

Male and Female: Fuscous brick-red with the anterior part of the prothorax darker than the sides or the elytra, glabrous above, shiny, clothed with a dense fulvous pubescence underneath; antennæ flavescent; labrum emarginate in the centre, above the labrum is a sharp, transverse ridge reaching from side to side, not aculeate at the ends, and on the centre of the frontal part rises a high, compressed, sub-laminate tubercle truncate at the tip, the frontal part is trapezoid, being about one-third wider at the base than across the clypeal part the outer margin of which, close to the genæ, is highly reflexed, the surface is very deeply and very closely punctate, the sub-foveate punctures are almost contiguous, especially in front, and separated by a narrow wall; prothorax with an anterior, sub-quadrate, sloping depression, rather than an excavation, not wider than the head and not reaching quite to half the length, this depression has on each side a small tubercle, and in the upper part two, somewhat short, sub-triangular ones nearly connected at their base and set close to each other, the posterior part is very convex, and has a shallow median longitudinal sulcus, the surface is covered with sub-foveate punctures more closely set in the anterior depression than on the sides where the intervals bear distinct aciculate punctures, but these punctures disappear above the median part of the base for about one quarter of the whole length, except in the sulcus which is plainly punctate; scutellum closely but very weakly aciculate; elytra longer than the prothorax, punctate striate with the punctures deep, intervals plane, smooth; femora almost impunctate; anterior tibiæ 5-dentate outwardly.

Length 11–16 mm.; width 7½–10 mm.

Closely allied to *B. damarinum*; the excavation of the prothorax is nearly alike, but the sides are scrobiculate in *B. damarinum*, which species *B. faustum* should follow.

Hab. Cape Colony (Vryburg); Transvaal (Lydenburg), Southern Rhodesia (Plumtree).

In the smaller development, and in the female, the anterior depression is less marked, and the two lateral tubercles and the two above them are not greatly developed.

Bolboceras hebes, n. sp.

Brick-red, shiny, glabrous on the upper side, very densely pubescent underneath, the pubescence is long and light fulvescent; antennæ yellow; labrum arcuate, long, followed by a highly raised ridge reaching from side to side, slightly more raised in the centre than at the sides which are angular, the sinus in front of the genæ triangular and highly reflexed, in the centre of the frontal part is a sub-tridentate highly raised lamina, the whole surface is scrobiculate punctate; prothorax with a transverse impression set at a short distance from the apex, extending across the median part, and bounded behind by a rounded, smooth, little raised, arcuate wall bearing two small tubercles somewhat distant from each other in the middle, the part behind that smooth elevation is transversely depressed and set slightly below the level of the basal part which is smooth along the median part, while the middle of the disk, including the anterior depression, is deeply and somewhat closely punctate and the sides scrobiculate foveate; scutellum smooth, impunctate; elytra a little longer than the prothorax, finely punctulate striate, intervals smooth; anterior tibiæ sharply five-dentate.

Length 11 mm.; width 8 mm.

Hab. Cape Colony (Colesberg).

Bolboceras disparile, n. sp.

Female: Brick-red with the head and the greatest part of the prothorax deep fuscous; antennæ flavous, clothed underneath with a long and very dense light fulvous pubescence; labrum nearly straight, carinulate, anterior margin of clypeus carinate, anterior frontal part with a short, triangular median tubercle in a line with the base of the ocular canthus, which said angles are dentate tuberculate, apex simple, head scrobiculate on the clypeus and the genæ, the space behind the median tubercle is very roughly punctate, but the punctures on the posterior part are round and remote; prothorax

with a short, shallow, retuse, triangular impression in the anterior part, limited behind by a smooth sub-arcuate space, covered with round punctures, smaller and closely set in the anterior depression, fairly closely set on the sides, but becoming a little more remote towards the median part of the disk; over the base is an impunctate, transverse area, slightly longer than broad, and in the centre of the posterior part a faint sulcus with one series of punctures; scutellum punctured, the punctures round and more closely set and deeper than those found on the prothorax, but slightly smaller; elytra finely punctate-striate, intervals smooth, plane; anterior tibiæ six-dentate.

This species is not unlike the female of *B. consocium* and of *B. pannosum*, but it is easily distinguished by its six-dentate anterior tibiæ; in the two above-named species the tibiæ are seven-dentate.

Length 12 mm.; width 8 mm.

Hab. Cape Colony (Vryburg).

Bolboceras exasperans, n. sp.

Male: Brick-red, shiny, glabrous on the upper side, villose underneath, the villosity fulvous; antennæ flavous; labrum simple, anterior edge not arcuate, edge of clypeus carinate; in the anterior part, and in a line with the point of insertion of antennæ is a small median tubercle without transverse ridge, the frontal part is not depressed, and the whole surface is covered with deep, closely-set, irregular and somewhat confluent punctures; prothorax with a median, sub-ovate impression or shallow cavity in the centre of the anterior part, moderately closely punctate in the sides, less so in the immediate neighbourhood of the cavity which reaches from the apex to slightly past the median part, and sparingly in the central posterior part, along the basal margin is a series of short, closely-set punctures; scutellum impunctate; elytra slightly lighter in colour than the prothorax, closely and deeply punctate striate, intervals smooth, not raised; under side closely aciculate; femora smooth except on the edges; anterior tibiæ six-dentate.

Length 7–9 mm.; width $4\frac{1}{2}$–$5\frac{1}{2}$ mm.

Hab. Transvaal (Waterberg); Damaraland.

This species closely approximates *B. pannosum* and *B. consocium* (Catal. i., pp. 488, 489), but the tibiæ are seven-dentate in these two species.

Bolboceras indigum, n. sp.

Brick-red, very shiny; labrum moderately arcuately emarginate, frontal part in the shape of an inverted truncate pyramid, sharply

carinate on the anterior and lateral margins, and having in front of the anterior angle of the genæ three highly raised, sharp triangular teeth set transversely in a row, hind part of the head slightly depressed in the centre and quite smooth; prothorax with an anterior semi-circular, moderately deep cavity not prolonged into a groove on the dorsal part, faintly plicate at the base, but otherwise quite smooth; on each side of the cavity are a few shallow, agglomerated punctures, but the sides except for a few semi-seriate, fine punctures along the margin, and almost the whole dorsal part from the top of the cavity to the base, are smooth; in the centre of the disk is a small, impressed line reaching the base, but not the cavity; scutellum with a few very indistinct punctures at about the central part; elytra firmly punctate striate; the lateral striæ obliterated from the base to about one-third of the length, the first seven dorsal striæ only reaching the base, the others are obliterated slantingly, that is to say, the eighth and ninth reach nearer the base than the others, and so on, the supra-marginal ones and those next to them being obliterated for about two-thirds of their length.

Length 12 mm.; width 8 mm.

This species is very closely allied to *B. vacivum* (Cat. i., p. 485) which it should follow. It is larger, but the shape of the head with the tri-dentate frontal part is similar, and the excavation of the prothorax is not angular on each side at the apex, nor is it prolonged into a deep triangular depression reaching nearly to the base; the punctuation, however, is nearly the same.

Hab. Southern Rhodesia (Plumtree).

Bolboceras sebakuense, n. sp.

Male: Brick-red, shiny, glabrous on the upper side, femora, sides of pronotum and gula densely hairy, the hairs long and fulvous; antennæ flavous; labrum with the edge slightly sinuose in the centre, and with a distinct transverse ridge equi-distant from the edge and from the transverse impression separating it from anterior part of the clypeus which is carinate; between the point of insertion of the antennæ, and equi-distant from the apex and the triangular genæ, is a ridge curving backwards, the two angles of which are plainly raised and the centre slightly elevated, but less so than the angles; the anterior frontal part behind the ridge is depressed, and at a short distance from the apex is a short, transverse, very distinct carina; the depressed frontal part and the sides are very sparingly punctate; prothorax very narrowly edged with fuscous, slightly retuse in the centre of the very anterior part, the

short, retuse part is weakly furrowed, and smooth on each side of the furrow, the surface is very sparingly punctured for two-thirds of the length, the punctures being shallow and sub-equidistant, the posterior third is impunctate, and in the centre there is a very shallow groove, along the base is a series of fine, closely set punctures; scutellum impunctate; elytra deeply and narrowly punctate striate, the intervals plane and impunctate; abdomen not distinctly punctate; femora smooth; anterior tibiæ seven-dentate.

Length 10 mm.; width 6½ mm.

Hab. Southern Rhodesia (Sebakwe).

This species is easily distinguished from the other South African species of the seven-dentate anterior tibiæ section by the armature of the head and the weak and very remote punctures of the prothorax.

Bolboceras matabele, n. sp.

This species might at first sight be taken for *B. exasperans*, but the anterior tibiæ are 7- instead of 6-dentate; the head is transversely striate punctate, and instead of the tubercle in the anterior part being in a line with the point of insertion of the antennæ it is set more forward and is very small; in the anterior part of the prothorax there is a moderately deep, obtusely triangular impression similar to that of *B. exasperans*, but the punctures on the sides are much more remote than in that species; elytra closely and deeply punctate-striate.

Length 8½ mm.; width 5 mm.

Hab. Southern Rhodesia (Plumtree).

This species is closely allied to *B. consocium*, which it should follow, and from which it differs mainly by the much more remote punctures on the sides and centre of the prothorax.

Bolboceras ambiguum, n. sp.

Male: Brick-red, shiny, clothed underneath with long fulvous hairs; head darker red, deeply and somewhat closely punctate in the frontal part, but rugosely coriaceous on the clypeus which is plainly carinate in front, in the centre of the frontal part and in a line with the eyes is a very short transverse ridge; prothorax not excavated or impressed in the anterior part, but having a very faint median longitudinal groove in the posterior, and covered with equi-distant, or nearly equi-distant round punctures separated by an interval wider than their diameter, in the centre of the base there is a small, smooth area; scutellum closely punctate; elytra deeply and closely punctate striate, intervals smooth, the three juxta-

sutural ones somewhat convex; under side aciculate punctate; anterior tibiæ eight-dentate outwardly.

Length 8 mm.; width 5 mm.

Hab. Transvaal (Waterberg).

This species is the only South African one known to me having eight-dentate fore tibiæ, and is thus easily identified. It is not unlike in general appearance *B. matabele*, but in the latter the scutellum is smooth.

Bolboceras nigrum, n. sp.

Male: Black, shiny, under side clothed with a flavescent pubescence; antennæ chestnut-brown; labrum with a plain, transverse ridge between the apex and the junction with the clypeus, edge of the latter distinctly carinate, in a line with the apex of the genæ is a triangular ridge reaching from side to side with the median parts and the angles plainly acuminate, beyond the middle of the frontal part is a transverse ridge which does not reach from side to side, and the space between the two ridges is depressed and nearly smooth, the clypeus is coriaceous, the apex of the head punctate; prothorax declivous in the anterior part, deeply impressed rather than excavate there, the depression being nearly as broad as long; from the median part to the base is a punctate sulcus deepening towards the base, the impression is vaguely punctate; on each side of the median sulcus is an impunctate area, but the punctures on the sides are deep and closely set; scutellum as long as broad, ogival, and closely and deeply punctate for four-fifths of the length; elytra deeply and closely punctate striate, intervals smooth, the dorsal ones slightly convex; under side aciculate punctate; anterior tibiæ nine-dentate.

Length $7\frac{1}{2}$ mm.; width $5\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Salisbury).

Bolboceras copridoides, Kolbe,
Ann. Soc. Entom. Belg., li., 1907, p. 29.

"Large, ferruginous, rufous or flavous pilose, head, prothorax, and scutellum fuscous brown, antennæ bright yellow ferruginous; elytra flavous brown with the suture and the external margin fuscous black, pectus, abdomen and legs rufous ferruginous, the teeth and ridges of the tibiæ black at apex, the spurs fuscous, the tarsi red with the joints black at tip; head rugose punctate, labrum little attenuate, obtuse in front, epistoma with a ridge attenuate on the upper part, frontal part highly carinate, the carina tri-tuberculate,

the median tooth retuse; anterior part of prothorax deeply excavate on each side, the cavities shiny in part, somewhat rugose punctate, anterior margin bi-sinuate, the dorsal lobe porrect, perpendicular, sinuate in the middle in front, bi-partite, sub-acuminate externally, the upper part of the prothorax rugose punctate, opaque, punctulate in the middle, shiny, sides carinate, inner carina situate close to the excavation, sub-dentate; elytra shiny, with twelve to thirteen striæ, the striæ punctulate, but not much impressed, most of them obsolete and abbreviated behind, the external ones geminate, the sutural stria more deeply impressed, entire, the eighth and eleventh evanescent, obliterated, sixth and seventh, ninth and tenth, twelfth and thirteenth geminate; anterior tibiæ six-dentate outwardly.

Length 22 mm.

Hab. German South-west Africa."

Bolboceras erastus, Kolbe,
Ann. Soc. Ent. Belg., li., 1907, p. 30.

"Male: A small species, remarkable, however, by the shape of the head and prothorax in the male. Fuscous brown, shiny, antennæ ferruginous; head shiny, loosely punctate, tri-carinate, the anterior carina produced by the epistoma, bending angularly back in the centre, connected with the anterior frontal carina which is angular in front, posterior (third) carina nearly straight, slightly flexuose and almost united with the eyes; prothorax smooth, shiny, little punctate, sulcate in the dorsal part, bi-excavate on each side in front, inner excavation deeper than the other, briefly corniculate, also on each side between the two excavations, this small horn is porrect and compressed, sub-acuminate at apex, and angular on the upper side, in the median part of the dorsal part is a plane, constricted process vertical in front the anterior upper margin of which is straight, sharply cut off, slightly reflexed and bi-angular on each side; hind margin of prothorax thickened, sinuate on each side; scutellum very sparingly punctulate; elytra punctate striate, dorsal striæ sub-sulciform; anterior tibiæ 6-dentate outwardly, spur curved.

Length 7 mm.

Hab. Damaraland (Windhoek)."

Bolboceras petulans, Kolbe,
Loc. cit., p. 30.

"Ferruginous brown, head and elytra infuscate, upper side of head closely, minutely granulose, moderately shiny, nearly opaque,

epistoma with a short, little noticeable bi-tuberculate carina set before the apex, vertex slightly convex, labrum sinuate; prothorax semicircularly but not deeply foveate in the anterior median part, and having the median longitudinal furrow broadening into a fovea, the dorsal part including the fovea and the furrow minutely rugose as far as the outer margins, then loosely and vaguely punctate with most minute punctures intermixed, discoidal part glabrous on each side towards the base, shiny, most minutely, loosely punctulate anterior margin bi-sinuate, median lobe separated from the antediscoidal fovea by a not distinct semicircular sulcus, posterior margin entire, reflexed; elytra finely seriate punctate, the 14 striæ slightly impressed, the intervals nearly plane, striæ 2, 5, 8, 11 obliterated behind, the eighth and eleventh also abbreviated in front; anterior tibiæ 6-dentate.

Length 14 mm.

Hab. Damaraland (Windhoek, Gobabis, Nosob River)."

BOLBOCERAS PANZA, Péring., Cat. i., p. 156.

According to Félsche (Deutsch Ent. Zeitsch., 1901, p. 154), this species is identical with *B. atavus*, Kolbe (Stett. Ent. Zeit., vol. lv., 1894, p. 167), described from a ♀ example. Kolbe's description tallies with that of *B. panza* ♀, but his name must prevail. The original example came from northern Nyassaland.

SUB-FAMILY HYBOSORINÆ.

GEN. PHÆOCROUS, Cast. Catal. i., p. 496.

PHÆOCROUS EFFETUS, Kolbe,
Ann. Soc. Ent. Belg., li., 1907, p. 28.

"Small, weak, shiny, ferruginous, elytra fuscous, moderately shiny above, but shiny underneath, impunctate or little punctate, sparingly setulose; head spaciously punctate, smooth in the centre on the vertex; prothorax plainly spaciously punctate, impressed longitudinally on each side and with two impressed foveæ at the hind part of the disk; elytra distinctly, spaciously, and irregularly punctate, indistinctly and non-regularly geminate striate, partly regularly or irregularly seriate punctate in the striæ; anterior tibiæ tri-dentate, not crenulate, the upper tooth small; tibiæ of the posterior legs, and also the tarsi slender.

Length 6½ mm.

Hab. Damaraland (Windhoek)."

PHÆOCROIDES, n. gen.

Mentum and ligula fused together without any apparent suture, slightly ampliate laterally at the base, sub-parallel from the median part to the apex where it is truncate with the angles distinct, anterior margin with a few setigerous punctures, labial palps inserted behind the ligular part, last joint cylindrical, truncate; maxillæ corneous like the mentum, upper lobe spatulate, and inner lobe with a slender bifid tooth-like process, in the manner of *Ochodæus;* labrum narrow, transverse, truncate at apex, mandibles projecting slightly beyond it, scooped inwardly, sharply carinate, obtusely dentate on the upper margin near the base, slightly bifid at tip, frontal suture obliterated, head simple, eyes not much exposed on the upper part and not very large underneath; first and second joints of the antennal club fitting into the third which is very convex; prothorax broader than long and gradually ampliated laterally from the apex to the base which is about one-fourth broader, and very slightly sinuate towards the outer angles; the scutellum is somewhat sharply ogival; the elytra gradually ampliated from the base to the posterior part as in *Phœocrous*, not much convex, and distinctly striate punctate; underside as in *Phœocrous*, but the hind femora are more developed; abdomen 6-jointed; the anterior tibiæ are sharply tri-dentate outwardly, the apical tooth being very long and curved, above the upper tooth the tibia is strongly serrate if not denticulate, and the inner apical spur is very short; anterior tarsi long, slender, longer than the tibia, intermediate and posterior of the same length as the tibia, claws very slender, hind tibiæ slightly bi- or tri-denticulate on the upper edge, hind spurs very short.

Phæocroides damarinus, n. sp.

Brick-red, sub-opaque, glabrous; head roughly rugose punctate, prothorax covered with moderately deep sub-variolose punctures separated from each other by an interval about equal to their diameter, but not regularly disposed, being more crowded and smaller in the anterior part, and leaving a smooth line in the posterior central part of the disk; scutellum impunctate; elytra with 9 plain striæ on each side, the striæ closely punctate, intervals plane, each with some seriate, somewhat remote punctures; underside glabrous except for a few setæ on the margin of the abdominal segments, the coxæ and femora; tibiæ sparingly setulose, joints of posterior tarsi with a long seta on each side.

Length 6 mm.; width 3½ mm.

Hab. Damaraland.

The type—the only specimen I saw—is in the Stockholm Museum.

GEN. ARÆOTANYPUS, Waterh., Cat. i., p. 899.

ARÆOTANYPUS CONSORS, n. sp.

Female: Testaceous red, antennæ flavescent; glabrous except for a few short setæ on the basal antennal joint, the coxæ and legs; labrum very transverse, straight in front, clypeus distinctly carinate in front and on the sides, no frontal suture, but a slight depression on each side near the genæ, whole surface of head covered with sub-contiguous, sub-rugose punctures; prothorax slightly attenuate laterally from the apical to about the median part, nearly straight thence, both anterior and posterior angles sharp, base moderately sinuate on each side, discoidal part rather depressed, and having a short, very faint longitudinal median sulcus above the centre of the base, the surface is covered with closely set, simple punctures separated from each other by an interval nearly equal to their own diameter in the central part only, and narrower towards and on the sides; scutellum with a few punctures at the base; elytra sub-oblong, being slightly ampliate laterally past the median part, not broader than the prothorax at the base and three times as long, very little convex, normally rounded at apex; they have each a distinct stria along the suture and four or five very indistinct ones on the remainder of the surface, and they are covered with almost seriate, deep, closely-set, sub-irregular punctures; underside shiny, nearly impunctate; anterior tibiæ with three very distinct outer teeth the apical one of which is very long and curves strongly outwards, the space between the teeth and also that above the basal tooth is serrated; each joint of the long slender tarsi bears on each side a long seta, the claws are extremely slender.

The female of *A. boops*, Waterh., is not known, and the present species might prove identical with it, but Mr. Arrow, who has kindly compared my example with the type of the genus, opines that it is a different species.

Length 8 mm.; width 4¼ mm.

Hab. Cape Colony (Vryburg).

Sub-Family OCHODÆINÆ, Arr.,

Trans. Entom. Soc. Lond., 1904, p. 747.

Arrow, *loc. cit.*, separates *Ochodæus* from the *Orphninæ*, and creates for it a sub-family basing itself on the difference in the position of the stridulating organs, and also on it having a pectinate spine to the middle tibia ; this character is, however, variable, because *Chætocanthus*, Pér., and *Synochodæus*, Kolb., have all the spurs crenulate, but as pointed out by Kolbe (Ann. Soc. Ent. Belg., li., 1907, p. 27), in the *Ochodæinæ* the very globose eyes are not divided in front by the canthus of the genæ.

Gen. OCHODÆUS, Catal. i., 505.

Ochodæus adsequa, Kolbe,

Ann. Soc. Ent. Belg., vol. li., 1907, p. 28.

"Ferruginous brown, moderately shiny, briefly flavopilose, more shiny underneath, the margins and legs with longer hairs ; head very closely rugose granulate, epistoma slightly sinuate in the middle of the anterior part, prothorax closely granulate, and having in the centre a longitudinal furrow disappearing in front ; elytra short, moderately deeply striate, striæ finely punctulate, intervals convex, profusely granulate but less densely than on the prothorax ; anterior tibiæ tri-dentate, the two apical teeth large, elongated, third minute ; tibiæ of hind and intermediate legs compressed, large, especially the hind ones.

Length $5\frac{3}{4}$ mm.

Hab. German South-West Africa : Damaraland (Gobabis and Nosop River)."

Gen. CHÆTOCANTHUS, Péring., Cat. i., p. 495.*

Chætocanthus bechuanus, n. sp.

Pale testaceous, sometimes slightly redder on the head and prothorax than on the elytra, covered all over the upper surface with a very short, appressed flavescent pubescence, and the long hairs edging the canthus of the eye, the sides of the thorax and of the elytra, the under side and legs, are of the same tint ; head covered with contiguous, sharp granules ; prothorax covered with similar but more elongated granules ; in the centre is a quite plain,

* In my description of the genus I omitted to indicate that the longer spur of all the tibiæ is crenulate.

entire longitudinal, median, impressed line; scutellum scabrose punctate, elytra oblong, elongate, faintly bi-costulate on each side, and covered like the prothorax with contiguous elongated granules, imparting to them a strongly shagreened appearance; pygidium and underside densely villose.

Differs from *Chætocanthus insuetus*, Péring. (Catal. i., p. 496), by the slightly more oblong shape, the plainly impressed prothoracic median line and the very much finer granulation of the upper side.

Length 6–8¾ mm; width 3–3½ mm.

Hab. Cape Colony (Vryburg District).

Gen. SYNOCHODÆUS, Kolbe,

Ann. Soc. Ent. Belg., vol. li., 1907, p. 27.

"Body oblong, pilose; labrum entire, rounded in front; eyes semi-globose, entire; elytra elongate, a little broader than the prothorax, sub-striate; tibiæ of the first pair tri-dentate outwardly, the two apical teeth strongly elongated; posterior tibiæ compressed, moderately broad, least ampliate towards the apex, briefly carinulate and bi-denticulate outwardly and with two somewhat elongated spurs at apex, the lateral, longer spur crenulate outwardly and more or less sparsely and briefly setose.

Synochodæus differs from *Ochodæus* in the labrum being rounded in the anterior part (in *Ochodæus* it is deeply scooped out), in the broad, truncate apical joint of the maxillary palps, the more elongated elytra, the more slender tarsi; the tibiæ of all the legs have hairs at apex, and the longer spurs of all the tibiæ are crenulate."

Synochodæus modestus, Kolbe,

Loc. cit., p. 27.

"Oblong, ferruginous, moderately shiny, plentifully flavopilose, moderately softly hirtose; frontal part rugose, vertex and epistoma shiny, impunctate, labrum moderately shiny, glabrous; prothorax rounded, attenuate in front with the anterior angles sharp, whole disc thickly but not very closely punctate; scutellum rugose punctate, sub-acuminate behind; elytra moderately narrow, slightly elongate, plentifully and moderately deeply, irregularly punctate but not punctate striate, partly, however, minutely, indistinctly striate, the striæ lightly impressed; pygidium with a very long pubescence, shining, minutely rugose punctate.

Length 5½ mm.

Hab. German South-West Africa."

Sub-Family ORPHNINÆ.

Gen. ORPHNUS, Catal. i., p. 499.

Orphnus zambesianus, Cat. i., p. 502.

I mistook for the female of this species another one which I describe further on under the name of *Orphnus parentalis*.

Female: Dull brick-red, shiny, head simple, covered all over with closely-set punctures; prothorax simple but having in the anterior part a short, very little raised yet distinct arcuate ridge at a short distance from the apex, and a longitudinal but also very faint impression in the middle of the posterior part, the surface is covered with cicatricose punctures separated by an interval about equal to their own diameter, but occasionally also wider in the centre of the base; scutellum indistinctly punctate; elytra of the normal shape, but without any traces of striæ and with the punctures very distinct and very closely set from the base to the posterior rounded part.

Length $8\frac{3}{4}$ mm.; width $5\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Plumtree, Sebakwe); Mozambique (Feira).

Orphnus kafuenus, n. sp.

Black, shiny, with the hairs brownish, and the antennal club rufescent. Closely allied undoubtedly to *O. incultus* (♀) (Cat. i., p. 504), which it should follow in the systematic arrangement; it differs from it in the punctuation of the prothorax which is deeper, and leaves in the centre a much broader smooth space; it is also more massive; the elytra have the dorsal striæ more distinct, and the punctuation which is deeper is less obliterated past the median part than in *O. incultus*.

Length 10–$10\frac{1}{2}$ mm.; width $5\frac{1}{2}$–6 mm.

Hab. North-Western Rhodesia (Kafue River).

Orphnus parentalis, n. sp.

O. zambesianus, ♀, Catal. i., p. 503.

Female: This species, which I erroneously assumed to be the ♀ of *O. zambesianus*, differs from it in the more parallel elytra, but especially in the punctuation of the head the clypeal part of which, and only the fringe of the frontal are punctured; on the prothorax the central dorsal part is impunctate for about one-third of the whole surface, and the sides bear some round punctures separated

by a space about equal to their own diameter in the anterior and posterior parts; elytra having in addition to the entire sutural stria two juxta-sutural ones distinct from the base to the posterior rounded part, and also a third, ill-defined series of punctures; beyond these the punctures, which are moderately closely set from the base to the rounded posterior part, are more shallow than in *O. zambesianus* ♀.

This species might prove to be the ♀ of *O. plebeius*, but I doubt it. Its nearest ally is *O. incultus* (Cat. i., p. 504), but the punctuation differs.

Length 9 mm.; width 5½ mm.

Hab. Southern Rhodesia; no exact locality.

ORPHNUS MASHUNENSIS, n. sp.

Brick-red, shiny, labrum genæ and prothorax with a fringe of fulvous setose hairs; clypeus and anterior part of the head somewhat closely punctate, the remainder smooth; prothorax more ampliate laterally in the anterior part than towards the middle, and nearly straight thence to the base, covered with smooth round punctures separated from each other by a space equal to their own diameter, but having in the centre a narrow longitudinal smooth space; scutellum impunctate; elytra with the juxta-sutural stria distinct and entire and having another faint punctate stria disappearing at about the median part; the other punctures are deep, round, equidistant and obliterated in the posterior rounded part.

This species is easily recognised by its more parallel prothorax which is ampliate rounded in the anterior instead of in the median part. It should follow *O. pugnax* (Cat. i., p. 500).

Length 8 mm.; width 4½ mm.

Hab. Southern Rhodesia (Salisbury).

SUB-FAMILY DYNASTINÆ.

GEN. HETERONYCHUS, Cat. i., p. 511.

HETERONYCHUS MOSAMBICUS, n. sp.,

Pl. XLVIII., figs. 30, 31, 32.

Black, shiny, body sub-parallel, clypeal and frontal carinæ united, somewhat obsolete in the centre, clypeus and anterior frontal part transversely and somewhat irregularly punctulate plicate; prothorax

slightly attenuate rounded laterally in the anterior part, nearly parallel thence to the slightly rounded lateral angle, impunctate; scutellum ogival, impunctate; elytra with regular series of round punctures but not striate, and with the interval between the first stria and the first row of punctures without punctures; propygidium extremely finely aciculate, the two stridulating striæ gradually diverging towards the apex; pygidium convex, very closely plicatulate punctulate along the base, the punctures stronger, more elongated and somewhat asperous on the lateral part; except for that band of punctures the remaining surface is quite smooth; anterior tibiæ tri-dentate and without intermediate teeth or upper angular projection line. Not unlike a small example of *H. arator* in general form, but smaller and with the prothorax and elytra more parallel; the species is easily differentiated by the shape of the genital armature of the ♂. It should follow *H. beiranus*. In the ♀ the clypeal suture is interrupted in the centre, and there is an upper angular projection above the basal tooth of the anterior tibiæ.

Length 10½–11 mm.; width 5–5¾ mm.

Hab. Mozambique (Beira).

Heteronychus beiranus, n. sp.,

Pl. XLVIII., figs. 35, 36.

Extremely like *H. mosambicus*, and might be easily mistaken for a small example of this species, but it differs from it by the anterior tibiæ which are plainly angular, if not dentate, above the third outward tooth; the shape and punctuation of the elytra are almost similar but only the four dorsal intervals are smooth, as far as the declivity, the others are very distinctly sub-seriate punctate, and the genital armature is quite distinct from that of *H. mosambicus*. This species should follow *H. dissidens*.

I may remark that in my diagnosis of *H. dissidens* (Catal. i., p. 515) I stated that there is no serrate tooth between the basal and second ones in the anterior tibiæ; I have ascertained since that normally there is such a tooth.

Length 8 mm.; width 4 mm.

Hab. Mozambique (Beira).

Heteronychus inops, n. sp.,

Pl. XLVIII., figs. 33, 34.

Male: Black, shiny; size of *H. mosambicus*, and very closely allied to it, but the clypeal carina is plainly produced triangularly

in front in the middle, and does not entirely coalesce with the frontal one as much as it does in *H. mosambicus*, the plication is, however, the same in both species; the shape of the prothorax and elytra is also the same, but in *H. inops* the juxta-sutural stria is deep, the other two following are moderately deeply striate in the dorsal part only, and the punctures of the third one is obliterated before reaching the posterior declivity which is deeply and somewhat closely punctate; the fourth and fifth rows of punctures reach slightly past the median part only, and the lateral ones are partly obliterated; the two stridulating striæ of the propygidium are subparallel, and the finely punctulate basal band on the pygidium is somewhat broader than in *H. mosambicus;* the anterior tibiæ are simply tri-dentate as in the last-mentioned species, but the genital armature is distinctly different in shape.

Length 10 mm.; width 5 mm.

Hab. Southern Rhodesia (neighbourhood of Salisbury).

GEN. XENODORUS, Brêm.,

Ann. Soc. Ent. Fr., 1884, p. 296.

XENODORUS JANUS, Fabric.,

Syst. Eleuth., i., p. 9.

Brême, Ann. Soc. Ent. Fr., 1884, p. 297, pl. 7, figs. 8, 9.

Venedus paradoxus, Boh., Catal. i., p. 557.

I separated this species, of which I saw only one example lent to me for the purpose of identification, from the genus *Heteronychus*, from which it greatly differs, and I proposed to include it in a new genus. Felsche, however, after having examined Boheman's type, has ascertained that it is the ♀ of *Xenodorus janus*, Fabric. (Deutsch. Entom. Zeits., 1906, p. 349). *Venedus* falls therefore into synonymy, and so does the specific name *paradoxus*.

The ♂ differs from the ♀ in bearing on the vertex of the head a long, recurved, sub-compressed horn dilated towards the apex, where it is bifid; the prothorax is very broadly excavated longitudinally, the walls of the excavation are produced into two broad projections directed forwards and ending in a sharp or moderately sharp point. The species is recorded from Senegal, Guinea, and also from the Congo.

Sub-Family RUTELINÆ.

Gen. ADORETUS, Cast. Cat. i., p. 565.

Adoretus debilis, n. sp.

Female: Pale testaceous, moderately shiny, the head with the exception of the clypeus is black, on the prothorax are two discoidal fuscous patches situated past the middle, the anterior median part is also occasionally infuscate, and so is the lateral fovea; elytra with the suture more or less broadly marginate with fuscous; clypeus and anterior frontal part moderately closely punctate, the punctures are asperous and irregular, and more remote near the vertex, the greater part of the clypeus is occasionally as darkly infuscate as the head; prothorax twice as broad as long, slightly sinuate laterally above the posterior part, and covered with deep, somewhat large, round, cicatricose punctures separated by an interval equal to their own diameter, and bearing each a very short seta; scutellum with a few small punctures; elytra with closely set rows of small but deep seriate punctures, and also having several rows of moderately remote greyish setæ, which are, however, obliterated on the median dorsal part; underside sparsely punctate, pectus with fine, appressed flavescent hairs.

Not unlike *A. flaveolus*, Fähr., but easily distinguished by the infuscate head, median part of prothorax, and elytral suture.

Length 6 mm.; width 3 mm.

Hab. Zambesi (Feira).

Adoretus exitialis, n. sp.

Female: Fuscous above, and clothed with erect, short hairs, flavescent underneath; prothorax with a very broad lateral flavescent band, scutellum flavous; elytra each with a broad, slightly slanting, dorsal flavescent band reaching from the humeral part to the apical callus; palpi and antennæ flavous; clypeus arcuately rounded, rufescent, covered with broad, asperous punctures, each bearing a very short hair, these punctures are more cicatricose on the frontal part of the head but not very closely set; prothorax ampliate rounded laterally and covered with round, slightly cicatricose setigerous punctures separated by an interval equal to their own diameter; scutellum closely punctulate; elytra of the normal shape, and without any traces of costules, covered with very closely set rows of deep punctures many of which bear an erect greyish hair,

and forming seriate lines, the hairs, however, are not sufficiently dense, or short enough to form a pile concealing the teguments.

Allied to *A. inconditus*, Pér. (Catal. i., p. 575), but easily distinguished by its livery.

Length 10½ mm.; width 5 mm.

Hab. Southern Rhodesia (Plumtree).

ADORETUS BEIRANUS, n. sp.,

Pl. XLVIII., figs. 37, 38, 39.

Totally piceous, or with the thorax and elytra testaceous red, occasionally the whole upper side is dark chestnut; antennæ fuscous with the exception of the two basal joints, which are rufescent; antennal club of the ♂ very long; upper side and legs covered with very short, appressed, equi-distant white stiff hairs separated from each other by a distance the width of which is equal to their own length; clypeus arcuate rounded, punctate, the prothorax on the clypeus more closely set than those in the frontal part which are simple, somewhat deep, and divided from each other by a span equal to their own diameter, each puncture is setigerous; prothorax nearly twice as broad as long, slightly ampliate rounded laterally in the anterior part; scutellum villose; elytra covered with closely-set series of deep punctures also set close to each other; in well-preserved examples there is on each side one sutural, four dorsal, and one marginal longitudinal rows of far remote, erect, short white bristles; underside sparingly villose; inner claw of anterior tibiæ of ♂ very slightly cleft, that of the ♀ distinctly so.

The nearest South African ally of this species is *A. plumbicollis*, Arrow, in which, however, the clypeus is much more arcuate, the pubescence on the upper side longer, as are also the seriate white bristles on the elytra. The shape of the genital armature of the two species is very different.

Length 6¾–8 mm.; width 3¼–3½ mm.

Hab. Mozambique (Beira).

GEN. ANOMALA, Sam., Cat. i., p. 586.

ANOMALA PERTINAX, n. sp.

Pl. XVLIII., figs. 21, 22, 23.

Brick yellowish red, shiny, legs redder; antennæ testaceous, clypeus and frontal part redder than the prothorax and elytra, both very closely aciculate; the clypeus is nearly straight laterally and only very slightly arcuate in front; prothorax very finely aciculate

in the anterior part and on the sides, the punctures, which are not very closely set, are obliterated in the centre and the median basal part of the disk; scutellum impunctate; elytra punctate and striate, the dorsal costules moderately raised; pygidium aciculate; pectus pubescent, abdominal segments each with a median line of bristly hairs; anterior tibiæ bi-dentate outwardly; inner claw of all tarsi simple in the ♂.

This species resembles *A. transvaalensis*, Arr. but it is redder; the shape of the genital armature of the ♂ differs greatly from that of the other South African species.

Length 14 mm.; width 7½ mm.

Hab. Transvaal (Zoutpansberg).

ANOMALA LATIUSCULA, n. sp.

Female: Pale flavescent with a slight metallic tinge on the upper side; head rufescent brown; prothorax with two very faint sub-infuscate patches on each side of the median part; head covered with contiguous rugose punctures from the apex of the slightly blunted clypeus to a short distance from the vertex where they are replaced by a fine, closely-set, simple punctuation; prothorax nearly twice as broad as long, slightly ampliate rounded laterally but only slightly attenuate towards the base, the whole surface is covered with fine punctures somewhat uneven but separated even on the sides by a space equal, or very nearly so, to their own diameter; scutellum finely punctulate as in the prothorax; elytra very little longer than broad, slightly wider than the prothorax at the base, but sub-obliquely ampliated from below the rounded shoulder, and with the supra-marginal fold greatly raised and very conspicuous, the striæ are very well defined and deeply punctate; pygidium sub-contiguously deeply punctate; abdomen sparingly, metasternum closely punctate; tarsi and apical part of tibiæ redder, or infuscate.

This species is distinguished by its short, broad facies and the swollen fold of the supra-marginal space below the humeral callus; this character occurs also in *A. dorsata*, Fähr., and *A. fusciceps*, Fähr., but in a much lesser degree. This species should therefore follow or precede them.

Length 11 mm.; width 7 mm.

Hab. Damaraland (Okahandja).

ANOMALA EXIGUA, n. sp.

Male: Piceous black, very shiny, elytra pale flavescent, almost straw colour, with the outer margins and the suture narrowly black;

legs piceous with the coxæ partly flavescent, tarsi light chestnut; antennæ and palps straw colour; clypeus strongly and regularly arcuate, the whole head is covered with contiguous, simple, somewhat deep punctures, the suture is deep and extends from end to end; prothorax nearly twice as broad as long, attenuated laterally for only about one-fourth of the length and nearly straight thence to the base, the latter is normally sinuate, the discoidal part is somewhat convex, and there is a median longitudinal line fairly distinct in the anterior part, but less so behind, the whole surface is covered with aciculate punctures divided from each other by a space equal to about twice their own diameter, the outer margin is moderately broadly flavescent, the flavescent part being divided into an anterior and a posterior patch; scutellum punctate with the margins narrowly smooth; elytra not quite twice the length of the prothorax, and broader than the latter at the base but more so at the apex, each bears three fairly distinct geminate very shallow striæ filled with punctures, and the intervals, which are quite plane, are somewhat irregularly punctate; the outer margins of both elytra and prothorax are fringed with hairs which are longer in the prothorax; pectus and femora clothed with a very dense sub-fulvescent pubescence; anterior tibiæ bi-dentate outwardly, inner claw of anterior tarsi very slightly cleft on the top and twice the size of the outer, claws of the intermediate and posterior ones long, somewhat slender and of equal length or size.

Length 7½–8 mm.; width 4–4½ mm.

Mr. C. N. Barker writes of this species: "I came across them in great numbers flying low over the veldt or settled and moving about over the ground."

This species will be easily identified through its small size.

ANOMALA SEPARATA, Brancs.,

Jahr. Ver. Trencs., xvi., 1897, p. 115.

"Testaceous, oblong, shiny, glabrous above; head finely punctate, clypeus divided from the frontal part by a transverse impressed line, the angles are rounded, the margin slightly reflexed and finely infuscate: antennæ testaceous; prothorax extremely finely, densely and not deeply punctate, broadly arcuate on the sides, obsoletely bi-sinuate at the base, and with a small fuscous spot on the sides; scutellum sub-triangular, rounded laterally, sparsely, most finely punctate; elytra two and a half times as long as the prothorax, somewhat broader and more shiny, little ampliate in the middle, singly rounded at apex, the humeral part prominent, dorsal part sub-regularly and

obsoletely punctate-striate, intervals sub-equal, not raised, and with fine punctures interspersed, the three first striæ more deeply impressed at the apex behind the apical callus; legs testaceous, trochanters, knees, apical margin of the anterior tibiæ, transverse ridges of the tibiæ, and of all the tarsi black; pectus and legs sparsely pilose; abdomen rufescent, nearly glabrous; pygidium triangular, rounded at apex, convex, densely punctate, the punctures sub-rugulose laterally.

Length 12–14 mm.; width 6½–7 mm.

Hab. Boroma, on the Zambesi River.

Near *A. immatura*, Boh., is, however, smaller, the punctuation is finer, and the colour of the legs differs."

ANOMALA DISCEDENS, Brancs.,

Loc. cit., p. 116.

"Oblong, shiny, underside pale straw-colour, upper side rufescent, sometimes darker; head densely and finely sub-rugose punctate, obscurely rufescent, almost metallic; clypeus transverse, broadly rounded with the margins slightly reflexed and infuscate, antennæ little infuscate with the club testaceous; prothorax twice as broad as long, narrower in front than behind, anterior margin broadly emarginate, posterior slightly bi-sinuate and with a strongly impressed line towards the sinuation and with the carinulate margins slightly infuscate, posterior angles obtuse, rounded, anterior sharp, dorsal part densely and finely punctate, median furrow often evanescent, a fuscous macule in the middle of the sides, the latter and the neighbourhood of the anterior angles more livid; scutellum triangular, acuminate and impressed at apex, closely and distinctly punctate; elytra sub-parallel, twice and a half the length of the prothorax, convex, deeply and roughly punctate striate, the first stria below the scutellum with irregularly dispersed punctures, the first three striæ deeper behind, those following disappearing in the apical callosity, intervals with very minute seriate punctures, third, sixth, and ninth more raised; shoulders prominent, behind them the lateral margin has an oblique fold; the colour is rufescent, sometimes rufous fuscous, and with a slight metallic sheen; anterior coxæ with a long and dense pubescence, that of the legs more sparse; knees, apex of the anterior tibiæ, and of the anterior and intermediate tarsi infuscate; posterior tibiæ and tarsi black piceous; anterior tibiæ bi-dentate; abdomen nearly glabrous; pygidium broadly triangular with the angles rounded, densely and more roughly punctate than the prothorax.

Length 10–11 mm.; width 5½–6 mm.

Hab. Boroma, on the Zambesi River."

This species is probably identical with *A. fusciceps* or *dorsalis*, Fähr.

GEN. POPILLIA, Serv., Cat. i., p. 611.

POPILLIA CHIRINDANA, n. sp.

Emerald green, extremely shiny, antennæ and palps testaceous, legs flavous testaceous with a greenish metallic tinge; prothorax with a narrow, lateral flavescent band, elytra with a broad arcuate flavescent band reaching from the shoulder to the median part, but not invading there the suture; upper side glabrous; clypeal part very closely scabrose punctate, frontal part finely punctulate in the anterior part of the disk where the punctures are somewhat remote, but increase in depth and closeness towards the sides where they are very distinct, the median posterior part is impunctate; prothorax plainly punctate except towards the apex; elytra narrowly punctate striate, but with the suture and the five dorsal intervals tectiform, laterally there is a very deep, longitudinal depression abutting on the margin which is there thickly folded, the three rows of punctures on the sides are strongly marked from the top of the impression below the humeral part to past the middle part, but obsolete or obliterated thence; propygidium covered with moderately shallow, equi-distant punctures; pygidium with a small patch of white hairs on each side of the base, remotely punctate, and with a few villose hairs along the margin which has a flavescent tinge; abdominal segments each with a band of white appressed hairs becoming thicker and thus forming a kind of small patch near the junction with the dorsal segment, these segments are closely punctate; sternum somewhat densely greyish pubescent, the sternal projection long, compressed, cuneiform; hind tarsi fuscous.

Length 14 mm.; width 8 mm.

This beautiful species seems to be very distinct from the other African ones.

Hab. Mozambique (Gazaland).

POPILLIA (NANNOPOPILLIA) DAMARÆ, Ohaus.,

Deutsch. Entom. Zeitschr., 1901, p. 257.

"Fuscous green, shiny, clothed with whitish grey hairs, elytra black with a large, lunulate fulvous macule. Clypeus trapezoidal with the margin highly raised, covered, like the frontal part and the vertex, with dense confluent punctures, and transversely aciculate.

Prothorax convex, densely arcuately aciculate and with erect hairs; scutellum aciculate like the prothorax, bare. Elytra impressed behind the scutellum, regularly striate and transversely punctate in the striæ, sub-sutural interstice with one single series above the one half. Pygidium densely transversely aciculate and hairy. Underside and legs densely pilose, the hairs erect and disposed in fascicles towards the sides of the segments; antennæ entirely testaceous. ♂: More sparsely pilose, legs fuscous bronze. ♀: Entirely more densely pilose, all the legs and tarsi testaceous bronze.

Length 9–9½ mm.; width 3½ mm. (♂) to 5 mm. (♀).

Hab. Damaraland."

GEN. ANODONTOPOPILLIA, Ohaus.,

Deutsch. Ent. Zeitschr., 1901 (1902), p. 271.

PHARAONUS, Pér., *nec* Blanch., Cat. i., p. 615.

I gave the description of *Pharaonus*, loc. cit., from *Popilia subvittata*, Burm., but Ohaus has created for this species the genus *Anodontopopillia* which differs from *Pharaonus* in having the maxillæ not dentate. In *Gnatholabis* the lower part of the maxilla is tri-dentate, but the upper part laminate; in *Pharaonus* proper the maxillæ, *teste* Ohaus, are 6-dentate.

GEN. GNATHOLABIS, Erichs., Cat. i., p. 616.

GNATHOLABIS HIRSUTA, Ohaus.,

Deutsch. Entom. Zeitschr., 1901, p. 258.

"Oblong, depressed, fuscous green-bronze, densely hairy, the hairs whitish grey, elytra smooth, testaceous with the whole margin, the humeral part and a double stria situated towards the apical calluses black-bronze. Clypeus quadrate with the anterior margin especially raised, fuscous, hairless, densely rugulose punctate, frontal part and vertex densely and confluently punctate and densely flavo-hirsute. Prothorax convex, indistinctly sulcate longitudinally in the middle, moderately umbilicate punctate, but more closely so at the sides, dilated before the middle, abruptly narrowed in front with the anterior angles sharp, arcuate laterally behind, with the hind angles sub-erect, sparingly hairy in the middle, more densely towards the sides, the hairs greyish. Scutellum punctate and hairy like the thorax. Elytra plane, hairless, shiny, impressed behind the scutellum, regularly punctate striate with the sub-

sutural interval irregularly punctate; pygidium shiny, with scattered aciculate punctures, and with sparse greyish hairs. Underside and femora clothed with dense and long hairs, fasciculate towards the sides of the segments. Antennæ fuscous, with the pedicel rufous.

Length 11 mm.; width 5 mm. ♂ ♀.

Hab. Arlington, Fort Salisbury (Rhodesia)."

GEN. PHÆNOMERIS, Cat. i., p. 619.

PHÆNOMERIS RUFIPENNIS, Brancs., Cat. i., p. 621.

? *P. magnifica*, Hope, loc. cit., p. 621.

I placed, with some doubt, however, *P. rufipennis*, Brancs., in synonymy with *P. magnifica*, Hope. I am not sure now of the identity of the latter, whereas I am certain of that of the former, and the name must thus be transposed in the aforesaid manner:

PHÆNOMERIS DITISSIMA, n. sp.

Head and prothorax golden green, elytra coppery red, pygidium, underside and legs emerald green, tibiæ and tarsi cyaneous, last joint of palps and first joint of antennæ cyaneous; head roughly coriaceous all over; prothorax impunctate except for a few aciculate punctures above the lateral margin and also along the sinuate part of the base; scutellum with a few scattered punctures; elytra with sharply tectiform costæ which are not punctate but are slightly irregularly plicate laterally, and the intervals are more deeply and more roughly punctate than in the other two South African species; the punctures on the propygidium are very coarse, foveolate and numerous; abdomen and legs very coarsely punctate; metasternum closely punctate, the punctures deep and nearly contiguous, mesosternal process cuneiform but hardly projecting beyond the coxæ.

Length 17 mm.; width 6½ mm.

Hab. Natal. Eastern Zululand.

More slender than its two South African congeners; it is also distinguished by the shape of the mesosternal process. The three species may be separated as follows:—

Mesosternal process very long; prothorax impunctate	*besckei.*
Mesosternal process long; prothorax closely aciculate punctate	*rufipennis.*
Mesosternal process very short; prothorax with only a few punctures above the outer margins and part of the suture	*ditissima.*

Sub-Family HOPLIINÆ.

Gen. ANISONYX, Catal. i., p. 633.

Anisonyx sesuto, n. sp.

Black, with the elytra chestnut-brown, clothed on the head with long, erect black setæ interspersed with light fulvous and not very dense ones; on the elytra these setæ are seriate; the whole underside of the pygidium and the legs have a long, dense yellowish pubescence; the long, acuminate clypeus is bare and closely punctate, the frontal part is covered with golden green, ovate scales; on the prothorax these scales are disposed in three central longitudinal bands and the sides are thickly covered with them; on the elytra they form three elongate agglomerations along the suture, and they are somewhat crowded on the sides; on the pygidial parts and underneath these scales are quite contiguous, and they are very numerous on the outer part of the intermediate and posterior legs; the elytra have a blunt costa on each side from the shoulder to the apex, and the fore tibiæ are sharply bi-dentate.

The vestiture of this beautiful species, which is also smaller than its congeners, makes its identification easy. It is so far as is now known the most Eastern species of a purely endemic genus.

Length 7–7½ mm., width 3⅘–4 mm.

Hab. Basutoland (? Morija).

Gen. HOPLOCNEMIS, Har., Cat. i., p. 690.

Hoplocnemis karrooana, n. sp.

Black with the elytra chestnut-red or dark red; propygidium and abdomen clothed with dense yellow scales; head with a triangular juxta-clypeal ridge produced in a distinct tooth in the centre, the clypeal lateral teeth are very sharp; prothorax not grooved longitudinally, covered with equi-distant, deep punctures which are somewhat crowded, hairs of the margins black; elytra and scutellum of the usual shape; the former are numerously punctate, each puncture bearing a short black hair; pygidium punctulate, very briefly hairy; pectus villose, the hairs more or less flavescent; hind femora of male strongly swollen and provided underneath close to the apex, on the outer side, with a vertical, long, compressed tooth slightly hamate at the tip, and the inner angle of the femora is produced in a long process acuminate at the tip and bearing the

spur at about half its length; the hind claws are not denticulate inwardly; the female is of the usual shape.

This species should follow *H. armata* and *H. mutica* (loc. cit., pp. 694, 695), from which it is distinguished by the long, vertical spine of the hind femora and the sharply acuminate inner angle of the hind tibiæ; the elytra are also less triangularly dilated.

Length 10–12½ mm.; width 6–8 mm.

Hab. Cape Colony (Willowmore).

HOPLOCNEMIS LIGHTFOOTI, n. sp.

Male: Upper side brownish black, very shiny, legs and under side brick-red, also very shiny and clothed with a dense fulvous pubescence; clypeus very sharply acuminate, the pointed part has two small teeth on each side, this clypeus is not separated from the head and both are closely foveolate punctate, each puncture bearing an appressed fulvous hair; prothorax longer than broad, sub-parallel, obliquely attenuated in the anterior part, covered with foveate setigerous punctures similar to those covering the head but wider, in the anterior part, and at a short distance from the apex is a median elongated, shallow impression with smooth sides; scutellum with two rows of closely set punctures on each side; elytra somewhat depressed along the suture, irregularly punctate, the punctures more regular on the sides and setigerous; anterior tibiæ strongly tri-dentate outwardly; hind femora very thick, nearly as wide as long, simple, tibiæ shorter than the femora, broadly dilated triangularly, the apex is deeply excavated on the upper side, the tarsi being inserted in the centre of the excavation the outer end of which is produced into an incurved process, and the inner in a straight mucro, slightly hooked at the tip, and twice as long as the outer one.

Length 9 mm.; width 6 mm.

This interesting species is easily distinguished from all its congeners by the very sharply acuminate clypeus and the shape of the hind tibiæ.

Hab. Cape Colony (Saldanha Bay).

GEN. HETEROCHELUS, Cat. i., p. 709.

HETEROCHELUS DEFECTOR, n. sp.

Bronze-green with a rufescent tinge on the legs, elytra chestnut-red; head and prothorax clothed with a very thick, upright, squamose yellow pubescence having no admixture of scales; scutellum densely

squamose ; elytra plainly tri-sulcate on each side with the sulci filled with a band of contiguous scales, the raised intervals are deeply punctate; propygidium with a narrow band of sub-orange yellow scales; pygidium vertical, dark brown and without scales from the base to the middle, closely scaly thence to the apex, sides of the abdomen covered with sub-lanuginose scales; pectus clothed with hairs and scales ; hind femora greatly developed, clothed with sub-appressed, moderately dense hairs; the trochanters are produced into a long and robust tooth, strongly sinuate in the inner part, the apical outer part of the knee is simple, but the inner is provided with a tooth as long as but more robust than the trochanterine spine, the hind tibiæ are not grooved, but they are deeply incised inwardly near the knee with the lower part of the incision plainly dentate, the lower edge is distinctly serrate, and the apical part is strongly mucronate on each side, but the lower mucro is longer than the upper; inner hind claw half the size of the outer.

This species is allied to *H. vulpinus* in the general appearance, but the spines of the trochanters and the inner part of the knee of the hind femora are much more developed ; the lower part of the inner incision of the tibiæ near the knee is very plainly dentate, and the upper apical part much more strongly mucronate; the vestiture of the pygidium is different, and the pygidium itself is vertical instead of being conspicuously swollen in the centre as in *H. vulpinus ;* it is thus similar to that of *H. multidentatus*, from which species it differs in several characters. Female unknown.

Length 7 mm.; width $4\frac{1}{2}$ mm.

Hab. Natal (Howick).

This species is to follow *H. vulpinus* and *H. lineatus*, Cat. i., p. 723.

HETEROCHELUS MULTIDENTATUS, Burm., Catal. i., p. 724.

Having obtained lately more examples of *H. multidentatus*, I find that especially in the smaller development the pygidium has on each side of the base a small, velvety, transverse, plainly discernible patch.

Female: Like the male in colour and vestiture, but the two black patches on the pygidium are wider, and the four clypeal teeth very obtuse.

Hab. Cape Colony (Willowmore, Oudtshoorn).

HETEROCHELUS PAVIDUS, n. spec.

Dark greenish bronze with the elytra and legs chestnut-brown or reddish ; clypeus with the two median teeth of the anterior margin

somewhat indistinct; prothorax strongly scabrose and clothed with a long, fine, greyish or sub-flavescent upright pubescence without an admixture of scales; scutellum closely scaly; elytra deeply sulcate, the sulci filled with greyish-flavescent or flavescent closely set scales, the costæ are smooth; propygidium with a narrow band of flavous scales; pygidium somewhat convex in the centre, covered with a velvety black-brown tomentum reaching from the base to two-thirds of the length, and thence to the apex with closely set, small yellow scales; occasionally there is a faint median longitudinal line of scales reaching the base; pectus and legs densely hairy; hind femora well developed and without any trochanterine spine, but with the inner apical part of the knee toothed; hind tibiæ grooved underneath and with the upper inner margin notched twice between the knee and the median part, the two notches being separated by a plain, somewhat truncate tooth, the lower edge from the excavated part right down to the apex, and also the upper edge are plainly serrate, and there is a mucronate tooth on each side of the apex, the lower one being longer than the upper, no apical spur; inner claw nearly half the length of the outer.

The female differs from the male in the less dense rows of more hair-like scales on the elytra, and the pygidium bears two basal brown velvety patches.

The nearest ally of this species is the small development of *H. armipes*, which I erroneously described as *H. mimus* (Catal. i., p. 726), and which differs by the vestiture of the pygidium and the absence of trochanterine spine.

Length 4½–6 mm.; width 3–4 mm.

The species should follow *H. armipes*, Cat. i., p. 725.

Hab. Transvaal (Johannesburg).

Heterochelus jucundulus, n. spec.

Male: Black with a faint metallic tinge, but also occasionally rufescent; elytra and legs red; anterior margin of clypeus quadridenticulate; prothorax covered with deep scabrose punctures, clothed with a very long erect pubescence, but having also a few appressed squamose hairs; scutellum covered with dense whitish flavescent scales; elytra moderately deeply bi-sulcate longitudinally on each side, the sulci filled with lanciform, not closely set whitish scales which are replaced on the sides by more hair-like appressed ones; propygidium with a narrow band of yellowish scales; pygidium densely scaly; pectus and legs pubescent; hind femora strongly developed, trochanters produced into a moderately long, basal spine,

inner apical part developed into a long spine curving inwards, outer part simple; tibiæ comparatively short, strongly curved, grooved underneath in the anterior part only, dilated in the apical into a conspicuous sub-quadrate lamina continued as a long, curved mucro at the lower apical part, the upper being only angular, the inner edge of the groove is moderately dented near the knee; inner claw cleft and only slightly shorter than the outer.

Female: Colour and vestiture of the male, but the scales on the elytra are more hair-like.

In general build this species is not unlike *H. natalensis*, but the shape of both the hind femora and tibiæ is different, and the pygidium is completely covered with yellow scales instead of being velvety black as in *H. natalensis*.

Length 5–6½ mm.; width 2¾–3 mm.

Hab. Transvaal (Pietersburg).

HETEROCHELUS SHILOUVANUS, n. spec.

Male: Black with a greenish metallic sheen which is very distinct on the sides of the prothorax, and still more so on the two discoidal costæ of the elytra and the suture; hind legs red; head with the anterior corners sub-dentate; prothorax not scaly, but clothed with long, greyish, partly appressed hairs; scutellum scaly, the scales long; elytra of the usual shape, sharply costate and with the suture conspicuously raised and denuded, the intervals filled with short, lanceolate greyish flavescent scales forming three distinct bands; propygidium and pygidium covered with contiguous yellow scales; pectus and legs densely hairy; hind femora greatly developed, armed underneath with a long, horizontal, nearly cylindrical trochanterine spine projecting at one-third of the length and with an hamate, robust tooth in the inner part of the apex; tibiæ not deeply grooved underneath near the base, provided inwardly with a sub-basal quadrate tooth, and three sub-serrate ones at a short distance from it, the apical inner angle is produced into a long, falcate mucro; the inner tooth is about one-half of the length of the other, broad and cleft at the tip.

In shape the hind legs are similar to those of *H. armipes*, from which it is easily distinguished by the strongly costate elytra and the concolorous pygidium; *H. natalensis* is its nearest ally in the form of the body and the colour of the hairs and scales, but not so in the shape of the legs nor of the vestiture of the pygidium, which is wholly velvety black.

Female unknown.

Length 7 mm.; width 4 mm.

Hab. Transvaal (Zoutpansberg, Shilouvane).

To follow *H. sulphureus*, Cat. i., p. 726.

HETEROCHELUS MOLESTUS, n. sp.

Male: Colour, shape, and vestiture of *H. shilouvanus*, from which it differs in the absence of the trochanterine spine of the hind femora and the vestiture of the pygidium, which is velvety black with a triangular apical patch of yellow scales, the shape of the tibiæ is, however, similar to that of *H. shilouvanus;* the elytra are equally highly costate, but they, and also all the legs, are reddish; outer claw of hind tarsi simple, inner one half the size of the outer and cleft.

Female unknown.

Length $5\frac{1}{2}$ mm.; width 3 mm.

Hab. Transvaal (Pietersburg).

HETEROCHELUS KARROOANUS, n. spec.

Male: Black, almost opaque, and very briefly pubescent on the upper side, clypeus sharply tri-dentate, the short pubescence black; prothorax very closely punctate, grooved longitudinally in the centre and having a narrow margin of yellow, small, ovate scales; scutellum scaly; elytra almost without any pubescence, broad at the base, short, non-costate and bearing on each side a juxta-sutural broad band of small ovate yellow scales reaching from base to apex, and a parallel dorsal one reaching from the base to the median part only; propygidium with an apical transverse band of yellow scales; pygidium velvety black suffused at apex with a few yellowish scales; hind femora very robust, scabrose, armed underneath with a sharp, horizontal trochanterine spine and not dentate inwardly at apex; tibiæ deeply grooved underneath at the base on each side of the knee, broadened and parallel there for all the length, pluri-denticulate and with the apical inner angle produced into a long hamate mucro; hind tarsi compressed, glabrous, bristly underneath at the joints, inner claw long, simple, outer one half the length of the inner and cleft; sides of abdomen clothed with yellow scales, the whole sternum with whitish ones.

Female: Black like the male, but densely pubescent on the head and prothorax, under side and legs; on the elytra are two bands of yellow scales disposed as on the male, and the apical part of the pygidium is also suffused with flavescent scales.

This species is closely allied in build and vestiture to *H. chirag-*

ricus, but in the latter there is only one broader dorsal band and an outer marginal one, the hind femora have a very strong mucronate tooth underneath at some distance from the knee, which is completely absent in *H. karrooanus*, the inner part of the tibiæ of which is almost parallel and denticulate, and the mucronate inner apical part less developed and bearing no spur underneath.

Length 6½–7 mm.; width 4–4½ mm.

Hab. Cape Colony (Willowmore).

This species is to follow *H. chiragricus*, Catal., Scarab., i., p. 736.

HETEROCHELUS CRISTATICEPS, n. spec.

Male: Black with the elytra triangularly flavescent from the base to past the median part; clypeus very little narrowed in the anterior part, straight and simple in front with the angles plain, but not denticulate; from the apex of the head to the median part of the clypeus are three transverse, parallel rows of upright, closely set and long, spine-like black bristles; prothorax shagreened, clothed with a brief, black pubescence, moderately deeply grooved in the centre, and having no vestiges of scales; scutellum of the normal shape; elytra strongly attenuate behind, non-costulate, very briefly pubescent; propygidium and upper sides of abdomen clothed with long light fulvescent hairs; pygidium deeply punctate, glabrous in the male; hind thighs short, moderately robust, hind tibiæ also short, gradually dilated towards the apex, nearly as broad there as the thighs, slightly concave inwardly, simple, and with an apical spur; the upper margin bears a bristle-like spine above the supra-apical sinuation; anterior tibiæ strongly tri-dentate, hind tarsi with a single simple claw.

Female: Like the male, but the transverse row of bristles on the clypeus is very minute and the elytra are completely flavescent the pubescence on the sides of the abdomen and the pygidium, which is also red instead of black, is greyish and only moderately dense.

Length 4½–6 mm.; width 2½–3 mm.

This species might at first sight be mistaken for an *Omocrates* on account of the strong attenuation of the posterior part of the elytra; transverse rows of the singular spines on the head are also met with in some species of *Omocrates* (*O. mendax*).

Hab. Cape Colony (Uitenhage).

This species is to follow *H. minutus*, Cat. i., p. 753.

HETEROCHELUS GRISEUS, n. spec.

Black with legs red, and clothed on the prothorax and elytra with nearly contiguous, narrowly lanceolate, somewhat greyish scales, the

sides of abdomen and pygidial part are clothed with wider and contiguous yellowish white scales; clypeus denticulate laterally with the angle of the truncate anterior margin sharp, deeply punctate, each puncture bearing a very short appressed greyish hair; prothorax scabrose and having a very short greyish pubescence; elytra non-costulate; hind legs and tibiæ simple, the latter with a long, slender terminal spur; claw of hind tarsi long, cleft inwardly near the tip.

The livery of this species is not unlike that of a very small example of *H. murinus* (Cat. i., p. 733) or *H. adspersus* (loc. cit., p. 734), but the shape of the simple hind legs approximates it more to *H. minutus*, Cat. i., p. 753.

Length 3½ mm.; width 2 mm.

Hab. Cape Colony (Willowmore).

HETEROCHELUS SIMULATOR, n. spec.

Female: Head, prothorax and pectus black; elytra, abdomen and legs rufescent; clypeus slightly narrowed towards the apex where it is transversely truncate with the outer angles sharp, the lateral part is slightly denticulate; prothorax distinctly scabrose all over, clothed with a short, greyish pubescence, very slightly canaliculate behind, and having in the groove some squamose greyish hairs; scutellum squamose; elytra very faintly costulate, covered with elongate squamulose whitish hairs not dense enough to hide the background; propygidium and sides of abdomen squamose white; pygidium closely squamose; hind legs simple; claws of hind tibiæ simple, not cleft.

Male unknown.

This species (♀) resembles somewhat the ♂ of *H. longipes*, but is different.

Length 5 mm.; width 3 mm.

Hab. Cape Colony (Uitenhage).

HETEROCHELUS SUSPECTUS, Boh.,

Öfv. Vet. Ak. Förhdl., 1860, p. 115.

Black with the elytra testaceous, antennæ and legs brownish red. Clypeus sub-parallel, angular laterally at the junction with the frontal part, truncate at apex with the lateral angles produced into a sharp tooth, the surface of the whole head is plainly asperous, and only slightly clothed with greyish hairs; prothorax elongated, attenuate laterally in front, grooved longitudinally in the centre of the disk which is deeply scabrose punctate, and clothed with an

erect greyish flavescent simple pubescence, which, although thick, does not hide the black background, but along the basal margin the hairs are slightly squamose; scutellum not much elongated, clothed with squamulose greyish white hairs hiding the background; elytra strongly narrowed towards the apex, seemingly without costules and clothed with very dense, squamulose, elongated, flavescent whitish hairs which, although set close to each other, do not completely hide the colour of the background; the pygidium is clothed with appressed hairs and also scales, the abdomen with lanceolate, thick, squamose hairs; apical tooth of anterior tibiæ long; anterior claws double, both cleft, the inner and smaller one very slightly only, the single intermediate one also slightly incised at tip, hind ones double, and cleft; hind femora somewhat robust, simple like the tibiæ.

Length 5½ mm.; width 3 mm.

The facies of this species resembles that of *Omocrates;* the shape of the clypeus and also of the attenuated elytra being the same, but the scutellum is not elongated as in *Omocrates*. The only example seen by me is Boheman's type or co-type, described from the neighbourhood of Svakop River, in Damaraland.

Gen. DICRANOCNEMUS, Catal. i., p. 787.

Dicranocnemus spiniceps, n. spec.

Male: Black, elytra slightly rufescent laterally, claws and hind tibiæ reddish; clypeus very plainly dentate laterally, and with the outer angle of the truncate anterior margin produced into a conspicuous spine-like tooth; prothorax moderately deeply grooved longitudinally in the hind part, covered with strongly asperous punctures turning to granules on the sides and clothed with a fairly long sub-flavescent pubescence and a few yellow scales along the base; scutellum scaly; elytra much narrower behind than in front, sub-bicostulate on each side, very deeply punctate, not pubescent, but sprinkled with small ovate yellowish or yellowish white scales more numerous across the median part where they form two patches, and along the apical margin where they form a broad border; propygidium clothed with thick elongate yellow scales; underside and legs densely hairy, the hairs greyish; upper outer tooth of anterior tibiæ far removed from the other two; hind femora somewhat robust and having a small trochanterine spine; claws of intermediate tarsi simple underneath, and cleft inwardly at the base, hind ones single, not cleft.

Female unknown.

Length 4¼ mm.; width 2¼ mm.

Hab. Cape Colony (Willowmore).

A very distinct species, which should follow *D. pulcher*, Catal. i., p. 790.

DICRANOCNEMUS ARDUUS, n. spec.

Head and prothorax black; elytra, underside and legs rufescent; clypeus truncate in front, slightly angular laterally, head and clypeus deeply and closely punctate, the punctures scabrose on the sides only, clothed with a very short, greyish not scaly pubescence, and moderately deeply grooved longitudinally; scutellum pubescent; elytra short, narrowed behind, sub-costulate, clothed with elongated flavescent scales not set closely and not hiding the red background; propygidium and sides of abdomen covered with flavescent scales; pygidium closely covered with thick scales which are somewhat fulvous on each side of the basal part, and looking, on that account, not unlike two faint fulvescent patches.

This species has more the facies of an *Heterochelus* than any of its congeners, on account of its being slightly more elongated in proportion to its width; the median claw is simple underneath, and the hind ones cleft laterally inwardly.

Length 4 mm.; width 2 mm.

Hab. Cape Colony (Uitenhage).

Closely allied to *D. pulverulentus*, but without any scales on the prothorax; those of the elytra are also more scattered and of a different colour.

GEN. MONOCHELUS, Cat. i., p. 828.

MONOCHELUS SAGÆ, n. sp.

Male: Black, opaque on the upper side, under side shiny; clypeus truncate in front with the anterior margin reflexed, parallel, briefly bristly along the edges, head and clypeus sub-scabrose punctate; antennæ black; prothorax as broad as long, strongly sinuate laterally in the posterior part above the sharp basal angle, deeply grooved in the centre from near the median part to the base, closely aciculate, and having in the median longitudinal groove, and also on the outer margin, a few white scales; scutellum clothed with white, sub-oblong small scales; elytra attenuated behind, non-costulate, vaguely aciculated; pygidium vertical; scaleless; upper side of abdomen with a lateral band of white scales, a similar but narrower band of scales edges the metasternum all round; anterior tibiæ tri-dentate outwardly, the teeth are distant, the claw of the intermediate tarsi is simple; the hind femora are greatly developed and dentate inwardly at the knee, the trochanter projects

as a sharp, moderately long, slightly curved spine; the outer margin of the tibiæ has a very distinct internal tooth at some distance from the knee and ends in a recurved apical mucro, the inner margin is serrulate but simple, and ends as a sharp angle at the apex.

Length 8 mm.; width 4 mm.

This species should precede *Monochelus formosus* (Catal. i., p. 835).

Hab. Cape Colony (Worcester).

Monochelus præstans, n. sp.

Male: Black with the legs brownish red, and the long antennal club black; head covered with small, elongate ovate white scales set close to each other; prothorax covered with contiguous ovate white scales, with four longitudinal bands of brownish rufescent ones the two median ones of which only reach from apex to base; scutellum beset with white scales; elytra with a sutural and a median dorsal line of brownish scales on each side, the sides are covered with scales of the same colour, but the scales of the dorsal part which is divided into two by the brown line are white; pygidial part and underside covered with contiguous white scales; legs sparingly scaly; clypeus parallel, truncate in front with the margin slightly reflexed and with the angles sharp; prothorax with the sides nearly straight, very slightly grooved longitudinally in the centre and with only a few short lateral bristles in the anterior part; elytra seemingly not costulate but with the supra-humeral impressions quite distinct; legs very long, anterior tibiæ bi-dentate, hind femora simple, not much thickened, trochanters not spinose, hind tibiæ not carinate, nor mucronate; claw of the intermediate legs with a conspicuous tooth underneath, that of the posterior simple.

Length 5 mm.; width $2\frac{1}{2}$ mm.

Hab. Cape Colony (Cape Peninsula).

This species should follow *M. pulvinatus* (Catal. i., p. 832).

Monochelus hilaris, n. sp.

Male: Black with all the femora red, clothed with closely set orange-yellow scales; clypeus narrowing and slightly rounded laterally, head covered with sub-erect squamose bristles; prothorax strongly attenuate laterally in front, rounded and ampliated in the median part, clothed with contiguous ovate yellow scales leaving two narrow longitudinal denuded bands in the centre of the disk, on the anterior part only of these two bands spring long, erect, subrufescent hairs forming a long crest, and there is a fringe of similar hairs along the outer margin; scutellum closely squamose; elytra

narrowed behind, and having on each side two very distinct costæ which, even in very well preserved specimens, show through the yellow, closely set, ovate scales clothing the surface, the suture, however, is narrowly denuded; pygidium vertical, sprinkled with fine, numerous yellowish scales not hiding the background altogether, propygidium with a broad apical band of closely set scales; under side closely scaly; hind femora very strong, broadly dilated, with the trochanters forming a sub-horizontal, not very sharp, spine at about the median part of the thigh, very much as in *M. lætulus;* the hind tibiæ are also shaped as in *M. lætulus*, but the supra-apical mucronate tooth of the inner edge is very much longer, and there is a very distinct outer apical spur.

Female: Clothed, like the male, with appressed orange-yellow scales which are, however, more elongated and more hair-like on the upper side; the elytra are red instead of being black, and the two costæ are less apparent.

As already stated the shape of the hind legs of the male is almost similar to that of *M. lætulus* (Cat. i., p. 846), but in the latter the prothorax has no denuded bands, and the elytra which are not as highly bi-carinate are so evenly covered with scales that the two discoidal keels are partially hidden.

Length $6\frac{4}{5}$–$7\frac{3}{4}$ mm.; width $3\frac{1}{2}$–4 mm.

Hab. Natal (Stanger, Durban).

GEN. MICROPLIDUS, Pér. (Catal. i., p. 876).

MICROPLIDUS FULVOVITTIS, Brancs.

Jahr., Ver. Trencs., xvi., 1897, p. 111, pl. iv., fig. 3.

"Elongate, convex, red, weakly ochraceous on the upper side and densely clothed with sub-erect setulose hairs, under side densely white squamose; head elongated, clothed with ochraceous scales, clypeus broadly rounded, antennæ red; prothorax convex, broader than long, obtusely ampliate in the middle of the sides, much narrower in front than behind and with the posterior margin obtusely produced, ochraceous squamose with two dorsal distinct fulvescent bands, and two less distinct on the sides; elytra plainly narrower towards the apex than the width of the prothorax, and half as long, ochraceous and adorned with a short, oblique dorsal fulvescent band, they are rounded singly at apex; abdominal segments glabrous on the upper side; legs red, and more opaquely squamose than the rest of the body.

Length 5–6 mm.; width $2\frac{1}{2}$–3 mm.

Hab. Boroma, on the Zambesi River."

This species is, judging from the figure, very much like *M. stabilis*, Pér., Cat. i., p. 878, but in the latter species the prothorax has no longitudinal bands.

Sub-Family SERICINÆ.

Tribe ABLABERINI.

Gen. TULBAGHIA, Pér., Catal. ii., p. 89.

Tulbaghia patruelis, n. sp.

Male: Piceous red with the legs sub-rufescent, and also the palps and the pedicels of the antennæ the club of which is fuscous; the inner joint of the latter is very short, and the second slightly shorter than the others which are greatly elongated; this character distinguishes at once this species from its congener *T. cereris* (loc. cit., p. 90); clypeus rufescent, head fuscous, very closely aciculate punctate; prothorax plainly punctulate, the punctures divided by an interval slightly smaller than their own diameter; scutellum weakly punctate; elytra weakly bi-costulate, the outer dorsal costa less distinct than the inner, surface sub-coriaceous; sides of elytra and prothorax with a fringe of long bristle-like hairs; anterior tibiæ bi-dentate outwardly, tarsi very long and slender.

Length 6½ mm.; width 3 mm.

Hab. Cape Colony (Tulbagh).

Gen. GAMKA, Cat. i., p. 159.

This genus which I included in the *Pachypodini* must revert to the *Ablaberini*.

MAKALAKA, n. gen.

Buccal organs of *Gamka;* clypeus sub-quadrate, truncate in front, level with the anterior part of the head, separated from it by a very slightly impressed line, labrum vertical, eyes large; antennal club much longer than the head in the ♂, third and fourth joints elongated, club 6-jointed, joints curving; prothorax transverse, ampliate rounded laterally; the base straight; scutellum cordate; elytra moderately elongated, sub-cylindrical, projecting beyond the pygidium which is drawn in; hind femora thickened; anterior tibiæ sharply bi-dentate, hind tibiæ broadly dilated at apex, the two spurs, one on each side of the tarsal basal joint, long, all tarsi very long, once and a half the length of the tibiæ, claw very slender, the two

branches fused together except at the very apex, where there is a slight cleft.

This genus is differentiated from *Gamka* by the very slender, hardly curved claws, the two branches of which are fused for the greatest part of the length.

MAKALAKA RHODESIANA, n. sp.

Male : Piceous black with the elytra pale straw colour, and the prothorax with a narrow, lateral marginal band of the same hue; antennæ and palps fuscous black; head and clypeus closely and somewhat deeply punctate, glabrous except the anterior border of the clypeus which has a fringe of erect, sub-flavescent hairs; prothorax covered with deep punctures separated by a smooth interval not quite as broad as their own diameter, outer margin with a fringe of bristly hairs; scutellum glabrous, punctulate; elytra glabrous, not costulate, deeply and somewhat closely punctate, outer margin with a fringe of pale hairs; hind legs and pectus moderately hairy.

Length $5\frac{1}{2}$ mm.; width $2\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Plumtree).

SUB-FAMILY MELOLONTHINÆ.

TRIBE PACHYPODINI.

RAMOUTSA, n. gen.

Mentum moderately elongated, rounded at apex; labial palps inserted laterally, apical joint swollen, broadly fusiform, not much attenuated towards the tip, maxillæ straight, truncated at apex, hollowed inwardly, labial palps wanting in my two examples; labrum vertical, clypeus hollow with the margin reflexed, regularly but broadly arcuate, frontal suture slightly raised, head marginate laterally as far as the base; antennæ somewhat short, 10-jointed; club tri-jointed, ampliate ovate, as long as the six preceding joints which are closely set, the seventh and sixth are very short and angular inwardly, the second is rounded; prothorax nearly twice as broad as long, very hairy laterally; scutellum very large; elytra nearly twice and a half the length of the prothorax, slightly sinuate laterally and barely reaching the pygidium which is vertical, very slightly convex and obtusely triangular; anterior tibiæ tri-dentate outwardly; posterior tarsi long, all the claws long, somewhat slender,

moderately curved, and with a slight hook at base; spurs of hind tibiæ long, somewhat slender.

This genus is readily distinguished from *Clitopa* by the shape of the antennal club, and the much less truncated anterior part of the clypeus.

RAMOUTSA FERVIDA, Bohem.,
Insect. Caffr., ii., 1857, p. 78.

Chestnut or chestnut-brown, with the prothorax almost black; the whole head is covered with deep, broad, contiguous, asperous foveolate punctures and clothed with long flavous hairs; antennæ chestnut-brown; prothorax plainly attenuated laterally from the sharp angular apex of the anterior part to the middle, slightly ampliated there, and nearly straight thence to the angle of the base, the latter being sinuate on each side, the surface is covered with somewhat deep punctures self-contiguous and somewhat asperous in front and on the sides, and separated on the disc by a smooth space about equal in width to their own diameter, the sides, the base, and the anterior part have a fringe of very long and dense flavous hairs, some such hairs being also scattered on the discoidal part; at an equal distance from the apex and from the centre of the disk is a short median impression; scutellum long, wide, ogival, impunctate; elytra shaped as in *Schizonycha*, slightly sinuate laterally below the humeral part, and very slightly ampliate past the middle; there are no costules, and the surface is covered with deep punctures slightly umbilicate, separated by an interval equal to their own diameter, and bearing each a most minute greyish hair; propygidium covered with fine punctures bearing only an appressed sub-squamose hair; on the pygidium, which bears a lateral fringe of yellow hairs, the larger punctures are filled by yellow, conspicuous scales, or thick squamose hairs. The genital armature of the ♂ greatly differs from that of *Clitopa*.

Length 9 mm.; width 4 mm.

Hab. Bechuanaland (Ramoutsa).

DAMARA, n. gen.

Body cylindrical; clypeus nearly porrect, straight laterally, slightly arcuate in front with the anterior margin moderately reflexed, head highly carinate laterally above the very large eyes, the carina continued as an arcuate ridge on the vertex, clypeal suture indistinctly carinulate, mentum densely hairy, last joint of maxillary palps cylindrical and slightly acuminate at apex; antennæ 10-jointed,

the six joints forming the club are very long, almost as long as the head, the fourth joint of the pedicel is less than half the length of the third; prothorax somewhat attenuate laterally in the anterior part, posterior angles obtuse, elytra quite parallel; pygidium vertical; anterior tibiæ bi-dentate outwardly; anterior tarsi as long as the tibia, claws wide, each one plainly toothed underneath in the centre; spurs of hind legs sharp.

The general appearance of the species for which I propose this genus, which should follow *Paraclitopa* (Cat. ii., p. 119), is much like that of the species of *Microplus* or *Microplidus* of the group *Hoplides*. I have not been able to dissect the buccal organs of the only example I have seen.

DAMARA VILLOSULA, n. sp.

Light chestnut-brown, clothed on the upper side with an appressed greyish-white pubescence with an admixture of erect flavescent setæ which are denser and longer on the prothorax; this pubescence is much denser and more silvery on the underside and pygidium, and the legs are very villose. Clypeus coarsely punctate and frontal part deeply, and roughly foveolate punctate, the punctures bearing a short bristle; prothorax convex in the centre at a short distance from the apex, and having a longitudinal smooth line running from apex to base, the rest of the surface is covered with sub-contiguous, somewhat broad but moderately shallow punctures, many of which bear a long setulose bristle, the base is plainly sinuate on each side, and the angles are obtuse, yet distinct; scutellum long, sub-ogival; elytra parallel, very little, if at all, broader than the prothorax, roughly and irregularly punctate, the punctures hidden, however, by the appressed pubescence, they have in addition regular series of erect setæ, and each one is obsoletely bi-costulate.

Length $7\frac{1}{2}$ mm.; width 3 mm.

Hab. Damaraland.

The type is in the Stockholm Museum.

TRIBE MELOLONTHINI.

GEN. SCHIZONYCHA, Erichs., Cat. ii., p. 190.

SCHIZONYCHA DAMARINA, n. sp.

Female: Head and prothorax brick-red; elytra pale straw colour; pygidium and abdomen fuscous; clypeus arcuate in front, but

plainly sinuate laterally, clypeal carina not much arcuate, the carina on the vertex very distinct and sub-crenulate; clypeus and frontal part deeply and unevenly foveolate punctate; prothorax of the normal shape laterally, but very plainly sinuate on each side in the base the centre of which is itself also sinuate, the central part is covered with nearly contiguous variolose punctures, and the sides and anterior part with equally closely asperous ones, from the centre of the disk to the base runs a longitudinal smooth line, and the supra basal fold is not quite smooth; scutellum closely punctate laterally; elytra of the usual shape and covered with simple punctures separated by an interval equal to their own diameter; pygidium finely but not closely punctate; pectus very villose; all claws with the lower tooth as large and as strongly hooked as the upper.

This species should follow *S. valida*, Boh. (Cat. ii., 196), and is not unlike in general facies small and slender examples of that species, but it is at once distinguished by the much closer punctuation of the prothorax, the strong sinuation of the base, and especially by the emarginate lateral part of the clypeus.

Length 16½ mm.; width 8½ mm.

Hab. Damaraland (Okahandja).

Schizonycha matabelena, n. sp.

Plate XLVIII., figs. 26, 27.

Pale testaceous, elytra sub-stramineous; clypeus arcuate, blunt and slightly emarginate in the centre, clypeal carina much raised, quite arcuate, not interrupted, vertex with a plainly transverse entire carina, the surface of the clypeus is covered with somewhat asperous punctures, that of the head with plain granules separated by an interval broader than their own size; prothorax of the normal shape, plainly and closely serrulate laterally, covered for two-thirds of the length with slightly asperous or umbilicate punctures separated by an interval equal to their own diameter, and bearing each a minute greyish white hair, in the median posterior part these punctures are not so closely set, and the border over the marginal part of the base is smooth; scutellum sparingly punctate, the punctures setigerous; elytra parallel, covered with umbilicate setigerous punctures separated by an interval equal to their own diameter; pygidium more closely punctate than the elytra; penultimate abdominal segment twice as broad as the one preceding; anterior tibiæ bidentate outwardly, but with a slight upper tooth; upper tooth of all the claws more slender and shorter than the lower, base of claws with a small bifid tooth.

Length 9 mm.; width 5 mm.

Hab. Southern Rhodesia (Plumtree).

This species, which should come near or after *S. puerilis* (Cat. ii., p. 209), is easily distinguished by the genital armature of the ♂.

Schizonycha howickiana.

Plate XLVIII., figs. 24, 25.

Very closely allied to *S. immixta* (Cat. ii., p. 230) but the umbilicate punctures of the head and clypeus are a little more closely set, the median sinuation of the anterior margin is not so strong; the sculpture of the prothorax is similar but there is a superbasal fold, although a non-conspicuous one; the elytra and the abdominal segments are alike, and so are the claws of the tarsi; but the antennal club, although well developed, is shorter than that of *S. immixta*, and the shape of the genital armature greatly differs.

Length 11¾ mm.; width 6 mm.

Hab. Natal (Howick).

Schizonycha litigiosa, n. sp.

Plate XLVIII., figs. 28, 29.

Testaceous red with the elytra paler, antennal club flavous, moderately long in the male; clypeus very blunt, nearly straight in front in both sexes, clypeal carina very little arcuate, and frontal suture not very deep, vertex without ridge; both clypeus and frontal part with transverse, asperous punctures; prothorax of normal shape, the anterior part covered with small, contiguous cicatricose punctures becoming almost granular towards the sides, these punctures are more remote in the posterior part, and there is a distinct supra-basal smooth fold; elytra sub-parallel in the ♂, slightly less so in the ♀, somewhat coriaceous but covered with small, very briefly setigerous punctures separated from each other by an interval broader than the puncture itself; penultimate abdominal segment not broader than the antepenultimate in both sexes; anterior tibiæ plainly tri-dentate on each side, tarsi moderately long, upper claw longer and stronger than the lower one. The shape of the genital armature resembles somewhat that of *S. ovampoana*, which, however, belongs to another section of the genus. It should follow *S. neglecta* (Cat. ii., p. 222).

Length 13–14 mm.; width 6½–7 mm.

Hab. Transvaal (Nylstroom).

Schizonycha ambigua, n. sp.

Plate XLVIII., fig. 46.

Belongs to the group of *S. infantilis* and *S. puerilis;* it is distinguished from the former by the more arcuate fore margin of the clypeus, and from the latter, the clypeal margin of which is identical, by having a very sharp, transverse carina on the vertex of the head; the shape of the body is similar to that of the two above-named species, but the punctures on the prothorax are not asperous, even close to the sides, and the scutellum is more numerously pitted than in *S. puerilis;* the sculpture of the elytra is very nearly the same, but the propygidium is finely punctate in the lower half, and the pygidium is more deeply punctate than in *S. puerilis*, resembling thus that of *S. infantilis*. The genital armature is much more like that of *S. puerilis*, the forceps are symmetrical, but of equal length and width, and the shape of each branch is that of the left one of *S. puerilis*, but twice as wide.

Length 10 mm.; width 5 mm.

Hab. Southern Rhodesia (Plumtree).

Sub-family CETONINÆ.

Tribe TRICHIINI.

Gen. STEGOPTERUS, Sch., Cat. ii., p. 296.

Stegopterus obesus, Burm., ♀.

Handb. d. Entom., vol. iii., 1842, p. 746.

"Black, fuscous hairy; pronotum punctulate, sub-sulcate; elytra striate punctate, red, suture and a diagonal band black. Remarkably short, broad and thick. Clypeus thick, finely punctate, hairless. Eye canthus and basal joint of antennæ thickly set with brown hairs, peduncle red, the small oval club black. Prothorax highly convex, the punctures fine; anterior margin well raised, punctures fine and scattered, a shallow longitudinal line in the middle, and scattered brown hairs, colour black, shiny. Scutellum black, wrinkled. Elytra shiny, costate, and with very weak furrows on which stand scattered shallow punctures; the suture, the outer margin, and a diagonal stripe running from the shoulder to the apical callus are black. Pygidium black-green, with scattered punctures and brownish hairs. The whole underside similarly coloured,

sculptured, and hairy; the sides of the sternum are more aciculate. The legs are similar in shape to that of the females of the genus, dark black-green externally with the feet red-brown and spiny, internally they have long hairs; fore tibiæ very broad, and with three outer teeth.

Length 6 lines.

Hab. Port Natal."

I am not aware that this species has been met again. Burmeister adds that it is easily distinguished from its congeners not only by its thicker build but also by the decidedly finer punctuation of the prothorax. He instances also the difference of habitat, but I am somewhat doubtful as to the authenticity of the latter as given by Drège.

GEN. STRIPSIPHER, Catal. ii., p. 304.

STRIPSIPHER JANSONI, n. sp.

Black with a few white splashes on the margins of the prothorax; elytra flavescent and having an U-shaped black band reaching from the humeral ridge to past the median part, and a narrow marginal band becoming very broad in the posterior margin; pygidium with a conspicuous sub-triangular lateral white patch, abdominal segments each with a longitudinal interrupted white band, pro-, meso-, and metathorax, and also the coxæ with a white patch; antennæ and palps brick-red, legs reddish with the hind tibiæ and tarsi infuscate (♂), or completely black with only the antennæ reddish brown (♀). Head with the clypeus deeply incised in the centre, the whole surface is deeply and closely punctate; prothorax obliquely ampliated laterally from the apex to about the median part, nearly parallel thence to the basal angle which is sharp, base deeply bi-sinuate and with the median part somewhat prolonged, the surface is depressed and somewhat irregularly and not closely punctulate, there is above the base a slight longitudinal elongated impression continued in the ♂ in a very faint line, and the outer margin is sparingly fimbriate; scutellum moderately punctulate; elytra once and a half the length of the prothorax, broader than the latter but with the humeral callus greatly developed and the humeral part greatly sloping, very nearly straight laterally for some distance from the shoulders, singly rounded behind, the suture and two alternating costæ on each side are raised and so is the second interval but in the anterior part only, the humeral costa is very strong, and the intervals and sides have deep sèriate sub-foveolate punctures; pectus and femora clothed with a long greyish pubescence, legs sparingly punctate; pectus and side pieces variolose punctate.

Length 11–11½ mm.; width 5½–6 mm.

Hab. Natal (no exact locality).

This species is more nearly related to *S. zebra* than to *S. longipes*, if the name of that species is what I believe it to be, but it differs from *S. zebra*, in which the clypeus is also deeply incised, in having the angles of the prothorax very sharp, and even dentate underneath in the ♀; the elytra are shorter and the humeral callus very much longer.

I have seen two examples (♂ ♀) sent to me by Mr. O. E. Janson as being possibly *S. longipes*, Swed. I have not seen the original description, nor have I found that of *S. swederi* in Schönherr's Syn. Insect., quoted wrongly in the Munich Catalogue as being on p. 106 of vol. i., pt. 3, but Burmeister's description of this insect agrees very well with *S. flavipennis* and *horsfieldi*, which I place in synonymy with *S. longipes*. Another reason for Mr. Janson's specimens not being what he thinks they are is that they are labelled "Natal," which was a *terra incognita* at the time of Swederus, whereas *S. longipes* is found not far from the first Cape settlement.

Tribe VALGINI.

Gen. COMYTHOVALGUS, Kolb., Cat. ii., p. 310.

Line 7. After "anterior tibiæ five-dentate," add "outwardly in the ♂, three-dentate only in the ♀."

Comythovalgus fasciculatus, Gyth., Cat. ii., p. 311.

C. plumatus, Fähr., Insect. Caffr., ii., p. 57, is the ♀ of *C. fasciculatus*.

Valgus smithii, McLeay, Illust. Zoolog. S. Afric., 1849, p. 16.

"Valgus thoraci postice utrinque macula nigrâ, abdominisque fascia alba.

Long. Corp. 4 lines.

This species is scarcely distinct from the *Valgus hemipterus* of Europe. It has the same rugæ of the thorax, the same size and general form, and only differs slightly in the disposition of the scales. In *V. hemipterus*, for instance, the abdomen is quite white, with thickly set scales. In *V. smithi* there is merely a white band. *V.*

smithi has also a white mark in the black lateral spot of the thorax. But in truth these species come very near to each other.

Hab. Cape."

I am not aware that this species has been met with again in South Africa.

TRIBE MYODERMINI.

DIPLOA PROLES, Kolb., Cat. ii., p. 316.

It appears that *D. rufiventris*, Arr., which I placed in synonymy with *D. proles*, Kolb., is a different species. My description applies to *D. rufiventris*.

TRIBE CETONINI.

GEN. ATRICHELAPHINIS, Kraatz, Cat. ii., p. 346.

There has been a transposition, loc. cit., of *Elaphinis* for *Atrichelaphinis*. Read instead of *Atrichelaphinis cinereobulosa*, *Elaphinis cinereobulosa*, and loc. cit., p. 447 *et seq.*, *Atrichelaphinis tigrina*, &c.

ELAPHINIS CARINICOLLIS, Kraatz, Cat. ii., p. 449.

According to Moser (Ann. Soc. Ent. Belg., 11, 1907) *Elaphinis carinicollis*, Kr. = *Micrelaphinis irrorata*, Fabr., Cat. ii., p. 340.

GEN. PHANERESTHES, Kraatz,

Deutsch. Entom. Zeitschr., 1894, p. 269.

= *Dulcinea*, Pér., Catal. ii., p. 345.

TRICHOSTETHA SIGNATA, Cat. ii., p. 363.

In synonymy with *T. signata* is to be added *T. tibialis*, Burm. (Handb. d. Entomol., v., p. 556), which is distinguished from the former merely by having a few white spots along the sides of the base, but as often as not these spots are reduced to one.

HETEROCLITA ? SCITULA, Jans.,

Cistul. Entomol., ii., p. 300.

"Elongate, villose, black above, opaque, thorax with the sides and some minute punctures in the anterior part white; elytra rufo-testaceous, punctate with white, suture black; pygidium with a white

macule on each side; under side black, shiny: anterior tibiæ acutely bi-dentate outwardly. ♂.

Length 9½ mm.; width 5 mm.

Head rather coarsely but shallowly punctured, the base with long ashy-white pubescence; clypeus large, dilated at the sides, strongly rounded in front, the margins acutely elevated, the apex shallowly emarginate, slightly convex in the centre, the sides strigose, shining black with a white spot on each side at the base of the clypeus; antennæ pitchy black, the club long and reddish. Thorax rather broader than long, the sides straight from the base to the middle, anterior margin with a small elevated ridge in the middle, posterior angles strongly rounded; basal margin nearly straight; dull black, rather coarsely punctured and covered with a dense ashy-white pubescence, a marginal band on each side branched in the middle, and several small spots on the anterior half white. Scutellum obtuse at the apex, dull black with several small white spots, the base punctured and pubescent. Elytra with prominent humeral angles, faintly punctured at the sides and apex, the disc with two slightly elevated indistinct longitudinal ridges; pale yellowish red, opaque, sparsely pubescent, suture black, a sutural and two discal rows of small spots and irregular confluent marks and spots at the sides and apex white; epimera black, densely pubescent, and with a white spot above. Pygidium large, the margin acute, black, slightly shiny, strigose, and pubescent, with a large mark on each side united at the base, and several small spots in the centre white. Beneath shining black, strigose and with dense long ashy pubescence at the sides; mesosternal process very short, dilated and truncate at the apex; abdomen deeply longitudinally impressed in the centre, the sides with broad white stripes; legs shining black, punctured and pubescent, tarsi reddish, anterior tibiæ broad with two large acute lateral teeth."

This species does certainly not belong to the genus *Heteroclita*. I have made only a cursory examination of the type, which very greatly resembles *Micrelaphinis nigritula*, Boh. ♂.

Gen. EUDICELLA, White, Cat. ii., p. 390.

Eudicella frontalis, Westw.,

Ann. Nat. Hist., 1841, p. 204; Arcan. Entom., i., p. 176, pl. 43, figs. 1, 2.

Bright very shiny golden green. The prothorax and elytra in both sexes are most delicately punctured; the suture and a broad stripe down the sides of the latter are of a splendid green, the other

parts of the elytra being stained with fulvous. The front of the head of the ♂ is bright fulvous, the extreme tip of the lateral horns black. On the under side the ♂ is of a splendid golden green, the femora with a dorsal stripe of bright red; the tibiæ green above, black beneath, as well as the tarsi; under side of the ♀ concolorous.

Male: Head with three horns, the median one, which is fulvous in the middle, is little longer than the head, and emits before the median part two sub-parallel rami serrulate laterally and recurved at tip.

Female: Clypeus simple, nearly straight in front and fulvous.

Length (horn excl.) 32–36 mm.

This species, which inhabits the West Coast, is said by Boheman to have been captured in Damaraland (River Nolagi).

GEN. SCYTHROPESTHES, Kraatz, Cat. ii., p. 401.

SCYTHROPESTHES TRICOLOR, Jans.,
Cistul. Entomol., iii., 1884, p. 106.

"Black, shining, elytra pitchy red, darker at the sides, the apex black, sides of the thorax, a broad transverse band on the elytra behind the middle narrowed and interrupted at the suture, a central spot on the pygidium, and the exposed portions of the meta-coxæ, yellow. Head rather sparsely punctured; clypeus slightly rounded at the sides, the margins elevated and slightly emarginate at the apex. Thorax convex, obtusely angulated at the sides, posterior angles rounded, the base slightly emarginate before the scutellum, sides sparsely punctured, with a large shallow fovea close to the margin, and a deep transverse impression on each side in front. Scutellum elongate, impunctate, the sides impressed. Elytra depressed, rounded at the apex and slightly produced at the sutural angles, sparsely and irregularly punctured, the apex finely strigose. Pygidium irregularly strigose at the base and sides, the centre almost smooth. Beneath with the thoracic segments and coxæ coarsely strigose and sparsely pubescent, the outer margin of the meta-coxæ swollen and glabrous; mesosternal process short, narrowed but obtuse at its apex; abdomen with coarse confluent punctures at the sides, and a slight longitudinal central impression; legs coarsely punctured and sparsely pubescent, anterior tibiæ with one distinct lateral tooth and the apex acute, intermediate and posterior tibiæ with one acute tooth in the middle, and a fringe of long black hairs on the inner side.

Length 20 mm.

Hab. ? South Africa.

Janson believes that, although indicated as coming from Bengal, his example is a native of South Africa, owing to its close affinity to *S. bicolor*, Westw.

GEN. SMARAGDESTHES, Kraatz,
Entomol. Monatsbl., ii., 1880, p. 28.

= *Isandula*, Thoms., Cat. ii., p. 410.

The former genus was published some six months before the second, but in the same year.

GEN. PACHNODA, Burm., Cat. ii., p. 434.

PACHNODA ALBONOTATA, Mos.,
Ann. Soc. Ent. Belg., li., 1907, p. 314.

"Black, shiny, marked with white. Head strongly punctate, clypeus sub-quadrate, anterior edge emarginate; prothorax, with the exception of a narrow median line, coarsely punctate, anterior margin slightly produced in the middle, and having a narrow lateral white line abbreviated behind; scutellum sparsely punctate, obtuse at apex; elytra sub-serrately punctate, and having on each side twelve small, white macules; pygidium sparsely aciculate punctate, and bi-maculated with white. Underside fulvo-pilose laterally; the mesosternal process is small, semi-orbicular, and not directed downwards; abdomen of the ♂ sulcate. Anterior tibiæ bi-dentate.

Length 19 mm.

Hab. German South-West Africa."

In size, shape, and coloration this species resembles much *Rhabdotis albinigra*, Burm., but owing to the shape of the metasternal process it cannot be included in this genus.

PACHNODA RUFOVIRENS, Qued., Cat. ii., p. 440.

It would seem that this species is the true *P. discolor*, Kolb., Cat. ii., p. 440.

PACHNODA MARGINELLA, Fabric., Cat. ii., p. 439.

Read var. *euparypha*, Gerst. Arch. f. natur., xxxvii., 1871, i., p. 46, line 34, instead of *cuneata*, &c.

Kraatz himself has admitted *P. euparypha* to be a variety of *P. marginella*. The outer characteristics are not sufficiently distinct to differentiate between the two with any degree of precision. But there is a slight difference on the genitalia of *euparypha*. I regret, however, that I have been able to examine one ♂ only, and this difference may prove not to be constant.

There are two species figuring in the Catalogue of Munich, *i.e.*, *Pachnoda carbonaria*, Gory, and *Pachnoda fimbriata*, Thunb., which I have not seen. The former is in the Museum of the University at Oxford, and Professor Poulton assures me that it is from the Cape, and was captured by the well-known traveller Burchell.

Mr. O. E. Janson informs me that he has cleared up the identity of these two species, which he declares to be South African, but his paper has not yet been published.

CETONIA (PACHNODA) CARBONARIA, Gor. and Perch.,
Monogr. Cét., 1833, p. 240.

"Body in the shape of an elongated square, rounded; clypeus quadrate, marginate, slightly sinuate along the anterior margin, gibbose on the upper side; prothorax semicircular, scooped opposite the scutellum, this last part large; sternum lenticular; elytra rounded externally at the end; upper part of the body deep brown, clypeus and underside brownish red; the lateral and abdominal segments seem to be marked with white. The bad state of preservation of the example we have before us prevents us from describing exactly their number and position.

Hab. Africa.

From the collection of Mr. Hope, of London.

Length 11 lin."

From the figure of Gory and Percheron I would not be surprised if this example was a very dark example of *P. rufa*, if not a melanic aberration of the same. I received an example having on the discoidal part of the elytra and reaching the outer margin a very large black macule or band. Schaum (Ann. Soc. Ent. Fr., 1849), who *inter alia* states that the insect is no longer in the Hope collection, questions also whether it is not a specimen of *C. rufa* (*carmelita*, olim) that has turned black or is badly preserved.

CETONIA (PACHNODA) FIMBRIATA, Thunb.,
Mém. Ac. Petr., vi., 1818, p. 417.

I have not been able to obtain the description of this species. Schaum says (Ann. Soc. Ent. Fr., 1844, p. 384): "*Pachnoda fimbriata*, Thunb., which Burmeister unites doubtfully to *P. cincta*, does not seem to be the same. Thunberg says nothing of the white spots on the under side; he says expressly that the pectus and the legs are green, and as he states that the scutellum is very short, his description cannot apply to *P. marginella*, Fabr."

ACROTHYREA, Kraatz,
Deutsch. Ent. Zeit., xxvi., 1882, p. 76.

rufofemorata, Burm., Handb. d. Entomol., iii., p. 422.
= *Lipothyrea barkeri*, Pér., Catal. ii., p. 472.

MAUSOLEOPSIS, Lansb.

Mausoleopsis albomaculata, Moser, Catal. ii., p. 488.
(Ann. Soc. Ent., Belg., 1907, p. 322.)

Herr Moser considers that *albomaculata* should not remain in the genus *Oxythyrea* on account of it having no spinose spiracle on the last abdominal segment, and also because the hind legs of the ♂ are not broadened and the claws of the fore tarsi are equal. I saw three examples only of this species, which I took to be females, in which the fore claws are equal, but in one the spiracle is certainly distinct, although not as prominent as in the other species of the genus. Then again the livery is the same as that of *Mausoleopsis amabilis*, and differs thus considerably from that of the species of the genus *Leucocelis*.

Mausoleopsis rubriceps, Raffr., Cat. ii., p. 489.

Herr Moser concludes also that this species should not be included in *Mausoleopsis* nor be left in *Leucocelis*, and that a special genus should be created for its reception. Truly in *rubriceps* the last abdominal segment bears no spinose spiracle, but the inner claw of the anterior tarsi of the ♂ is considerably longer and thicker than the outer, in the manner of *Mausoleopsis*, and the pygidium is equally broadly truncate at apex and equally parallel laterally. I do not therefore feel justified in proposing a new genus for a species which, as is the case for *albomaculata*, links fairly well *Leucocelis* with *Mausoleopsis*.

Mausoleopsis zambesina, Brancs.,
Jahr. Ver. Trencs., xvi., 1897, p. 117, pl. iv., fig. 7.

"Very black, oblong, shiny; head roughly punctate, clypeus sinuate, with the margins neither carinate nor reflexed; dorsal part of the prothorax silky, lateral margins with an oblong white macule on each side, and a smaller one of the same colour before the scutellum; scutellum elongate triangular, whitish; elytra silky at the base, lateral margin having on each side some small white macules behind the shoulders and before the apex, and a larger

macule in the middle; pygidium fuscous and having on each side a white macule at the base; pectus with a broad white lateral macule on each side; the femora, especially the anterior ones and also the intermediate, with long, fulvescent hairs; legs concolorous.

Length 11 mm.; width 6 mm.

Hab. Boroma, on the Zambesi River.

Resembles greatly *M. amabilis*, Sch., but smaller and more elongated on that account."

The species described below has been omitted from the following "Additions and Corrections" and is inserted here for lack of other space.

SUB-GEN. SEBASTEOS, Westw., Cat. i., p. 57.

SEBASTEOS PROCLES, Kolb.,

Denksc. Med. Naturw. Ges. Jena, xiii., 1908, p. 131.

Black, shiny, head moderate in size, striate and punctate, vertex simple sparsely punctate, anterior margin nearly briefly sexdentate, not prolonged in the centre, the two median teeth parallel, briefly denticulate inwardly, the outer ones diverging, median sinuation hardly dentate in the inner part of the median teeth; prothorax broader than the elytra, discoidal part with disseminate punctures on each side, crenulate laterally with the anterior angles sharply dentate, and bearing in the basal part a straight linear series of thickly set punctures; elytra opaque, shiny towards the suture, striate with the intervals plane and sparsely punctate; tibiæ of the anterior pair quadridentate and serrulate externally, serrulate and mucronate at apex; intermediate and posterior tibiæ nigropilose; hind coxæ simple, not spinose, mesosternum tuberose, metasternum sulcate longitudinally, not foveate at base; pygidium glabrous.

Length 26 *mm.*

Hab. Little Namaqualand.

THE FOLLOWING ADDITIONS AND CORRECTIONS WERE MADE OR HAVE APPEARED WHILE THIS PRESENT PART WAS IN THE PRESS.

Sub-Family COPRINÆ.

Group CANTHONIDES.

Gen. ELASSOCANTHON, Kolb.,
Denksc. Med. Naturw. Ges. Jena, xiii., 1908, p. 130.

Body ovate, highly convex. Head of moderate size, clypeus briefly, not sharply five-dentate in front, the two sub-median teeth distinct, moderately sharp, but the intermediate small tooth as well as the external, also small outer tooth short, lopped off. Prothorax transverse, deeply emarginate in front, slightly ampliate laterally before the median part, angular, the juxta-lateral fold is curved and approaches the sides in front and behind. Elytra contiguous with the prothorax with the shoulders straight, eight costate, the eighth stria situated close to the seventh and connected with it at apex, but abbreviated near the shoulders; epipleura moderately dilated, the superior costa broadly sinuate near the middle. Anterior tibiæ somewhat broad, widely obtuse at apex, attenuated towards the base, slightly serrate externally and bi-dentate there towards the apex which is briefly spurred; fore tarsi slender, very short, almost shorter than the apical width, five-articulated, bi-ungulate. Hind tibiæ a little longer, shorter than the hind femora, slightly arcuate, slender, slightly ampliate towards the apex; the tarsi moderately short, first joint shorter than the second. Metasternum ample, level with the mesosternum and broadly divided between the median coxæ, which are longitudinal and slightly oblique. Abdomen short, contracted; pygidium drawn forward and marginated with a circular impressed line set close to the basal margin.

Elassocanthon brevipes, Kolb.,
Loc. cit., p. 130.

Black, somewhat opaque, palpi and tarsi brownish, anterior femora provided with a rufo-villose, inner, sub-basal area; anterior coxæ and under side of the head rufous setose; head and prothorax closely punctate, the suture between the genæ and the clypeus is distinct, the vertex has a minute, smooth median area; prothorax

slightly narrower than the prothorax, the punctures are denser towards the sides, the anterior and posterior angles are obtuse, and it is slightly depressed in the inner part of the fold; elytra striate, the striæ indistinctly punctate, the striæ plane, somewhat glabrous, numerously covered with seriate punctures, the external ones being in addition slightly obliquely rugose; epipleura plane, a little contracted behind the shoulders, and ending before the very apex.

Length 11½ mm.

Hab. Namaqualand (Kammagas).

GEN. ONTHOPHAGUS, Latr.

ONTHOPHAGUS KALAHARICUS, Kolb.,

Loc. cit., p. 129.

"Very small; resembles *O. exiguus*, Péring., shiny, elytra splashed with black and red, pygidium steely-black; head shiny, two-horned, the horns grown from the vertex are straight, parallel, obtuse at apex, sub-dentate inwardly at the middle, and are not united at the base by a carina; frontal part and vertex very sparingly punctate, not carinate, clypeus bi-dentate, the teeth sub-reflex, divided by a sinuation; prothorax strongly convex, bi-impressed for the reception of the two horns in the anterior part which is profusely but not thickly granulate and punctate, it is indistinctly impressed longitudinally in front of the scutellum, the base is entirely marginate, the lateral margins briefly sinuate before the sharp anterior angles, and nearly straight before the posterior angles which are obtusely rounded; elytra impressed-striate, the striæ punctate, the intervals convex and bearing a series of large punctures; pygidium sparsely impressed punctate; anterior tibiæ tri-dentate, with the margin numerously crenulate between the teeth and behind them, the inner part of the apex is sharply dentiform, and the spur strongly curved.

Length 4 mm.

Hab. Kalahari."

GEN. MACRODERES, Westw.,

MACRODERES MUTILATUS, Kolb.,

Loc. cit., p. 130.

Highly convex, black, moderately shiny, head not particularly punctate, anterior margin sub-sinuate, nearly obtuse, not dentate, sub-sinuate towards the genæ; frontal carina entire, slightly arcuate angularly and with the median part higher; prothorax moderately densely punctate, the anterior part simple, not impressed, depressed longitudinally in the middle of the posterior part, lateral margins

slender, slightly reflexed, not crenulate, nearly completely rounded, sub-sinuate before the apex, the posterior angles obtusely rounded; elytra finely striate, the striæ indistinctly punctate, the intervals convex, sub-costate and minutely punctulate; the reflexed edge (false epipleura) moderately smooth, partly punctulate, and the series of punctures abbreviated soon after the extreme apex.

Length 10 mm.

Hab. Namaqualand (Steinkopf).

Tribe COPRINI.

Gen. ONITICELLUS, Serv.

O. nasicornis, Pér. nec. Reiche; Boheman nec. Reiche, is pronounced, and rightly so, by Arrow (Ann. Mag. Nat. Hist., i., 1908, p. 180) to be *O. intermedius*, Reich. Voy. Galin. Abyss. Insects, 1850, p. 337, pl. 20, fig. 5 ♂, *b* ♀.

Oniticellus pictus, Hausm., Catal. i., p. 164.

I gave *O. formosus*, Chevr., as synonymous with *O. pictus*, Chevr. (Cat. i., p. 164). Arrow, however, states (loc. cit.) that *O. formosus* "is a West African insect, larger than *O. pictus*, and differing in the form of the clypeus and other respects.

Gen. TINIOCELLUS, Pér., Cat. i., p. 116.

A wrongly transposed line in the Key to the Genera of the tribe Coprini (Cat. i., p. 108, line 26) makes me say that in *Drepanocerus* and *Tiniocellus* the antennæ are 8-jointed. In the description of the generic character I mention, however, that they are 9-jointed. Arrow retains in the genus *Oniticellus*, *T. spinipes*, for which my genus was proposed (Ann. Mag. Nat. Hist., i., 1908, p. 183). But it is the fact of it having 9-jointed instead of 8-jointed antennæ as is obtaining in the genera *Drepanochirus*, *Scaptocnemis*, *Oniticellus*, &c., which induced me to remove it from *Oniticellus*.

Sub-Family APHODIINÆ.

Gen. OXYOMUS, Muls.,

Oxyomus pusio, Kolb.,

Denksc. Medic.-Naturw. Ges. Jena, vol. xiii., 1908, p. 125.

"Small, testaceous ferruginous, moderately shiny; prothorax more shiny, posterior part of head fuscous brown, palpi, antennæ

and legs completely testaceous, anterior edge of the prothorax narrowly infuscate or blackish, suture of elytra fuscous; head conspicuously but not densely punctate; edge of clypeus sub-reflexed, marginate, plane, anterior margin slightly reflex; prothorax plainly punctate, the posterior angles obtusely rounded; elytra moderately highly carinate, the carinæ glabrous, the intermediate striæ deep and punctulate.

Length $2\frac{1}{2}$–$2\frac{3}{4}$ mm.

Hab. Kalahari."

GEN. APHODIUS, Illig.,

APHODIUS (ESIMUS) EFFETUS, Kolb.,

Loc. cit., p. 126.

"Oblong, testaceous, shiny, head and prothorax brownish ferruginous, the former lighter coloured in front, the latter behind, suture of elytra brown; head shiny, finely and closely but not densely punctate, clypeus sub-obtuse in the centre, very little emarginate, rounded on each side; prothorax moderately thickly punctate but more densely so laterally, the posterior margin finely costulate, posterior angles rounded; scutellum elongate, parallel in front; elytra finely striate, the striæ finely punctate, the intervals smooth, moderately plane, very finely and widely punctulate; anterior tibiæ tri-dentate externally, simple above the teeth, the intermediate and posterior clothed with short setæ alternating with longer ones.

Length 3 mm.

Hab. Great Namaqualand (Keetmanshoop)."

APHODIUS (BODILUS) KUKUBANUS, Kolb.,

Loc. cit., p. 127.

"Sub-elongate, moderately convex, fuscous, pronotum chestnut-fuscous with the sides flavescent brown; elytra testaceous, black fuscous towards the suture; pectus fuscous, abdomen ferruginous, pygidium testaceous; femora flavescent testaceous with the tibiæ chestnut-brown and the tarsi ferruginous; head tri-tuberculate; clypeus roughly rugulose and punctate, anterior margin sub-obtuse in the centre, very slightly sinuate, obtusely rounded and reflexed on each side, the margin continued as a straight line on each side as far as the genæ; frontal part transversely sub-carinate, and having in the centre a tuberculate carina sub-tuberculate on each side, numerously punctulate behind the carina and thence smooth; prothorax slightly attenuate in front, somewhat conspicuously narrower than the elytra, the posterior margin entirely costulate as a pro-

longation of the lateral ones; the whole surface unequally and closely punctate, the punctures large and intermixed with minute ones, smooth longitudinally in the centre; scutellum moderately minute, triangular; elytra a little broader than the prothorax, finely striate, the striæ punctulate and reaching the apex, the intervals plane from the base to the apex, distinctly punctulate; tibiæ of the first pair tri-dentate outwardly, and having two or four small teeth above the upper tooth, intermediate and posterior with the apical margin briefly setose.

Length $5\frac{3}{4}$ mm.

Hab. Great Namaqualand (Kubub)."

Aphodius (Bodilus) damarinus, Kolb.,
Loc. cit., p. 127.

Very closely allied to the preceding species, smaller, coloured in the same manner, legs testaceous with the tibiæ more or less obscure; frontal part tri-tuberculate, the two tubercles smaller than the median one; clypeus little reflexed, sub-levigate, finely closely punctulate, the margin sub-sinuate in the centre, lateral margin forming on each side a sinuation with the genæ; prothorax less copiously punctate, the posterior margin is more fully costulate; elytra striate in the same manner, but the intervals are more finely, almost indistinctly punctulate.

Length 4–$4\frac{1}{4}$ mm.

Hab. Damaraland (Otjimbingwe).

Aphodius (Orodalus) nama, Kolb.,
Loc. cit., p. 126.

" Small, black, somewhat robust, moderately elongated and somewhat convex, black on the upper side with the palpi black fuscous; antennæ ferruginous, the club opaque black; prothorax with an obscurely red-chestnut macule, posterior margin of elytra of the same colour, femora sub-ornate with chestnut, tarsi ferruginous; clypeus rugulose, opaque behind, slightly sinuate on the centre in front, rounded on each side; frontal part transversely sub-carinate, the carina slightly raised on each side, tuberculate in the middle, the posterior frontal part punctulate and smooth in turn; scutellum little impressed, not punctate, parallel in front; prothorax as broad as the elytra, sparingly and dispersedly deeply punctate, but with the punctures sparingly interspersed with minute punctures, posterior margin entirely costulate, the costule being continued from the lateral margins, posterior angles rounded; elytra finely striate,

the striæ slightly punctate, the 4th and 6th are connected behind with the 5th, the 8th with the 7th, the 9th is abbreviated, the intervals from the base to the apex are completely plane, and impunctate, but the sutural interval is slightly convex towards the apex; anterior tibiæ crenulate above the upper tooth, those of the intermediate and posterior pairs have a circle of setæ short but alternating with longer ones on the apical margin.

Length 4–5½ mm.

Hab. Namaqualand (Steinkopf)."

Sub-Family OCHODÆINÆ.

Gen. CHÆTOCANTHUS, Pér.

Chætocanthus suspectus, Kolb.,

Denksc. Med. Naturw. Ges. Jena, vol. xiii., 1908, p. 124.

Similar to *C. insuetus*, Pér.; rufous ferruginous, abundantly pilose, very closely finely granulose on the whole upper side, the granules of the prothorax less minute than those of the head, those on the elytra slightly larger than those on the prothorax; mentum convex (not concave), rounded in front, closely setose, labrum briefly emarginate; prothorax nearly twice as broad as long; elytra substriate; anterior tibiæ plainly bi-dentate outwardly (without any traces of a third tooth); posterior tibiæ thickened, robust, narrowed towards the base, spurs of the intermediate and posterior ones very greatly elongated, narrow, plane, slightly ampliated towards the apex, and rounded there.

Length 7½–8½ mm.

Hab. Damaraland (interior of Walfish Bay territory).

Sub-Family TROGINÆ.

Gen. TROX., Fabr.

Trox nama, Kolb.,

Denksc. Med. Naturw. Ges. Jena, vol. xiii., 1908, p. 125.

"Near *T. luridus*, but differs on the less slender body and also by the briefly ciliate prothorax and elytra, the former is moreover hardly tuberculate, not costate, unequal, binodose in front of the base where it is very closely punctate, and set here and there with discoidal granules and with a few wrinkles, the sides, which are straight and

almost angular are longitudinally depressed, with the edge completely plane, the lateral margins are arcuate, crenate, converge in the anterior part, the posterior angles are acute; elytra having on each side nine series of alternate chain-like links, four primary and five secondary, the first ones a little thicker than the others, the tubercles of the chains are narrow, sub-elongate, every chain having on each side a sharp, slender costule interrupted by numerous seriate foveolæ; the tubercles of the chains bear brief fulvous fascicles of hairs, before the apex is a juxta-marginal abbreviated series of weaker fasciculated granules little discernible long past the middle; anterior tibiæ little dentate externally, the two apical teeth are approximate, divided by a sinus and are large, the five lateral small teeth are smaller, the last one extremely small.

Length 10·5–12 mm.

Hab. Great Namaqualand (Kubub)."

Gen. GLARESIS, Erichs.,
Nat. Insect., iii., 1848, p. 925.

Kolbe records (loc. cit., p. 125) the capture of *G. frivaldskyi* in the Kalahari. This species is recorded from Hungary, Turkestan, Northern Africa, and North America.

Sub-Family HOPLIINÆ.

Gen. HOPLOCNEMIS, Gemm.

Hoplocnemis lightfooti, Péring., Catal., ii., p. 664.

Female: Slightly less shiny than the ♂, and with the pubescence paler; the clypeus is as sharply acuminate; the foveolate punctures of the prothorax are similar in size and proximity, but the median part of the disk is only slightly depressed, not grooved longitudinally and is impunctate as in the ♂; the sculpture of the elytra consists of sparse foveate punctures bearing each a minute greyish hair and irregularly seriate except the two juxta-sutural ones; in the posterior part these punctures are obliterated except along the outer margin; the propygidium is clothed with greyish flavescent hairs, and the surface of the not densely pubescent pygidium is very bluntly raspy; hind femora very robust, hind tibiæ very short, robust, dilated at the apex and without any traces of apical spurs.

This species is the only one known to me having a broad, smooth

space in the centre of the dorsal part of the prothorax, and is easily distinguished on that account.

Length 9½ mm.; width 5½ mm.

Hab. Cape Colony (Port Elizabeth).

GEN. HETEROCHELUS, Cat. i., p. 709.

Mr. Arrow informs me that *H. longipes*, Burm., is the same species as *H. gonager*, Fabric.

SUB-FAMILY SERICINÆ.

GEN. ABLABERA, Cat. ii., p. 75.

ABLABERA DELICATULA, n. sp.

Pale straw-colour, covered on the whole upper side with a pallid erect, dense pubescence, the pubescence on the under side and on the legs is also dense, but it is appressed; clypeus transverse at apex, very slightly denticulate in the centre and with the angles sharp, projecting a little and somewhat reflexed, surface finely aciculate, clypeal suture very slender; head closely and somewhat coarsely punctate; antennæ stramineous, antennal club 5-jointed in the ♂, but with the fifth joint of the pedicel very briefly laminate; prothorax slightly wider than long, slightly ampliate rounded laterally past the median part, covered like the head with deep, closely set punctures; scutellum closely punctulate; elytra parallel, not broader in the posterior part than the prothorax, sculpture and vestiture similar to those of the latter; propygidium aciculate, pygidium sub-remotely punctate, the punctures setigerous; tarsi very long, claws slender, widely divaricating.

This species is more parallel (♂) than any of its congeners. The ♀ will probably prove to be slightly less parallel. The shape of the clypeus is almost similar to that of *A. amoena*, Per. (Cat. ii., p. 83).

Length 5½–6 mm.; width 2–2½ mm.

Hab. Cape Colony (Willowmore).

SUB-FAMILY MELOLONTHINÆ.

GEN. CLITOPA, Erichs., Cat. ii., p. 147.

CLITOPA DEBILIS, n. sp.

Male: This species might be taken at first sight for a small example of *C. fusciventris*, Boh., but it differs by the shape of the clypeus which is slightly more sinuate in the centre, with the sides

broadly rounded, the anterior part does not bear any erect bristles, being merely less densely villose than the frontal part and vertex; the villosity of the prothorax and scutellum are alike in both species, but the white hairs on the elytra are shorter and much more squamose in *C. debilis* than in *C. fusciventris;* this difference in the shape of these white hairs is plainly noticeable on the propygidium, pygidium, and under side of *C. debilis*, which are very distinctly squamose white.

Length 11 mm.; width 6 mm.

Hab. Transvaal (Zoutpansberg).

Gen. SCHIZONYCHA, Erichs., Cat. ii., p. 190.

Schizonycha feirana, n. sp.

Rusty-red or reddish chestnut, shiny, palps and antennæ flavescent; head slightly darker except the neck than the prothorax or elytra, the reflexed anterior margin of the clypeus is very conspicuously emarginate in the centre in the ♂, but not even sinuate in the ♀, the frontal carina is merely slightly arcuate in the ♂, barely distinct at some distance from the canthus of the eye, and the basal carina is very sharp, whereas in the ♀ it is very broadly triangular with the median part undoubtedly sharp, the basal carina is much less sharp, and the surface of both the clypeus and the head with the exception of the neck is rugosely asperate foveolate; prothorax one-fourth wider than the median length, strongly attenuated obliquely laterally from the anterior angle to the median part, thence ampliate and moderately rounded as far as the base, covered with punctures separated by an interval about equal to their diameter, slightly rugose in the ♂, plainly variolose in the ♀ which has also an abbreviated median smooth elongated area, absent in the ♂, the smooth supra-basal lateral fold is also more conspicuous in the ♂; elytra of the usual shape and sculpture, the punctures hairless in both sexes, slightly rougher on the ♀; penultimate abdominal segment wider than the antepenultimate; pectus very sparingly hairy; anterior tibiæ tri-dentate outwardly, upper claw more slender than the lower and of about equal size. The clasps of the ♂ resemble those of *S. vicaria*, but the two branches are more slender—the longer one distinctly sinuate outwardly, and the apical part is more spatuliform.

Length 14–14½ mm.; width 6–7 mm.

Hab. Zambesi River (Feira).

The male of this species is easily recognised by the more than usual narrowed anterior half of the prothorax.

SCHIZONYCHA CONSUETA, n. sp.

Male: Head and prothorax dark chestnut, elytra chestnut-red, antennæ rusty-red with the club slightly flavescent; clypeus arcuate very slightly blunted in the centre of the anterior part, clypeal carina not much arcuate, frontal suture very shallow and narrow, vertex with a somewhat sharp, transverse raised line, clypeus and frontal part scabrose tuberculate, behind the centre of the frontal line is a somewhat broad smooth space, the neck is smooth; prothorax somewhat short, twice as broad as long, of the usual shape, covered with closely set cicatricose punctures, broadly asperous laterally and in front, the median discoidal part has a smooth, median longitudinal smooth line, and a small median basal smooth patch, the suprabasal marginal fold is smooth for a short space only; scutellum with a few median punctures; elytra moderately elongated, and moderately broad, covered with somewhat simple, extremely briefly setigerous punctures separated by a smooth interval about equal to their own diameter; pygidium with closely set, somewhat deeper punctures than those on the elytra; penultimate abdominal segment not wider than the ante-penultimate; anterior tibiæ tri-dentate but with the upper tooth very blunt, fore tarsi longer than the tibiæ; upper claw of all the feet longer than the lower, strongly curved, and of equal size of a somewhat heavier build than *S. quæsita* (Cat. ii., p. 216), and also differing in colour; the shape of the genital clasps of the ♂ is perhaps nearer to that of *S. quæsita* than to that of any South African species known to me, but the branches of the forceps are broader, not strangulate above the apical dilated part, which is angular in the middle of the dilatation instead of the outer part of the base.

Length 15 mm.; width 9 mm.

Hab. Cape Colony (Transkei).

SCHIZONYCHA EFFETA, n. sp.

Head and prothorax testaceous-red, elytra paler testaceous; clypeus plainly transverse in the anterior part, normally rounded on the sides, clypeal ridge very little raised, quite transverse and merged with the clypeal suture, vertex with a slightly raised transverse line, surface of both clypeus and frontal part covered with large, round, nearly coalescing punctures separated by a very narrow, slightly raised wall; prothorax of the normal shape, but very convex on the posterior median part, the sides being on that account highly declivous there, the surface covered with cicatricose punctures divided by a smooth space equal to their own diameter, and slightly larger and less cicatricose in the centre, where there is

a very small impunctate area, supra-basal fold somewhat punctate; scutellum sharply triangular, and with one lateral row of punctures; elytra elongated, covered with sub-cicatricose punctures separated by an interval equal to their diameter and almost imperceptibly setigerous; pygidium as long as broad, and with a few punctures only on the sides of the anterior part; under side very sparsely punctate and pilose; penultimate segment of abdomen broader than the antepenultimate; anterior tibiæ distinctly tri-dentate outwardly; all the tarsi very long, the upper claw very much longer than the lower, which on that account seems to be median, and is somewhat short.

In general appearance not unlike *S. transvaalica*, Cat., but differing in many points. The genital armature of the ♂ is not unlike that of *S. furva* (Cat. i., pl. 41, fig. 60, but narrower, especially at the base.

Length 10¼ mm.; width 5 mm.

Hab. Transvaal (Pietersburg).

Schizonycha pauperata, n. sp.

Male: Dark chestnut-brown, shiny; antennæ ferruginous; clypeus arcuate but blunt on the anterior part the margin of which is very slightly sinuate in the anterior part, clypeal carina strongly arcuate, the frontal suture plain, straight, vertex raised; prothorax short, more than twice broader than long, normally crenulate ciliate laterally and covered with simple but deep elongate punctures separated by a slightly raised interval about equal to their diameter, and bearing each a squamiform white hair, there are no traces of smoothness in the supra-basal fold nor of a median longitudinal smooth line; the punctures on the head and neck are similar to those of the prothorax, except those of the neck which are not squamigerous; scutellum with two lateral series of scaly punctures; elytra short, somewhat massive, deeply punctate but with the intervals smooth, each puncture with a sub-squamose short hair, apex of propygidium, and pygidium sparsely punctate; penultimate abdominal segment not wider than the antepenultimate; anterior tibiæ stoutly tri-dentate, tarsi short, not longer than the tibiæ, upper claw curved, longer than the lower, which is not much stouter. This species greatly resemble *S. constrata* and also *S. rurigena*, but the two examples I have seen are a little shorter and stouter, the punctuation of the head and prothorax is deeper, more closely set and more squamosely setigerous. The genital organs of the ♂ are of quite a different shape from that of either of them, and approximates those of *S. fraudulenta* (Cat. ii., p. 226,

pl. xli., fig. 57 (read *fraudulenta* instead of *dubiosa* in explanation of plate), but the branches are a little broader, quite symmetrical and with the apical angles neither sharp nor quite rounded.

Length 13 mm. ; width 7 mm.

Hab. Transvaal (Potchefstroom).

SCHIZONYCHA CITIMA, Péring., Catal. ii., p. 225.

This species shows a great variation in the punctuation of the prothorax, according to their habitat. In the type form, from Northern Rhodesia (Manica), the punctures are somewhat sparse and shallow. But in examples from Salisbury and Plumtree, also in Southern Rhodesia, Nyslstroom in the Transvaal, Vryburg in Bechuanaland, and Bothaville in the Orange River Colony, the punctuation is closely set, and almost similar to that of *S. valida* (Cat. ii., p. 224), whereas the shape of the genital organs of the male remain the same.

SUB-FAMILY CETONINÆ.

GEN. GNATHOCERA, Kirby.

GNATHOCERA IMPRESSA, Oliv.
Ent., i., 6, p. 39, pl. 8, fig. 71.

Black opaque on the upper side, which is adorned with numerous sulphureous yellow bands and macules ; antennæ, legs and under side ferruginous red. On the upper side the opaque or little shiny coating hides nearly the sculpture ; projections of the anterior part of the clypeus long, sharp, anterior part strigillate, posterior not very numerously punctate, in the frontal part are two lateral yellow macules on each side, and a larger one above the eye ; prothorax of the normal shape of the genus, indistinctly punctulate, the punctures being partly hidden by the coating, in the centre is a longitudinal yellow band reaching from apex to base and an outer marginal one entire and slightly broader than the median ; scutellum very sharply triangular and with a median yellow band that seems to be a continuation of the prothoracic one ; elytra attenuate behind, more deeply punctate than on the prothorax and with two high rounded costæ on each side, in each of these first two intervals is a series of spots or macules set very near each other, and probably occasionally partly coalescing, on the outer margin is a moderately broad band of the same colour the inner edge of which is produced on a short spur approaching very much one of the macules of the second interval, and also slightly enlarged at the apical part of the suture ; pygidium with two transverse yellow patches ; each of the abdominal

segments is laminate with yellow, leaving only a narrow median longitudinal band; the pectus, side pieces, and the greatest surface of the femora inwardly and outwardly are covered with yellow.

Length 14–14½ mm.

This species is a native of the West Coast of Africa, but O. E. Janson states that he has received or seen it from Damaraland.

Gen. LEUCOCELIS, Burm.

Leucocelis damarina, Kolb.,
Annal. Soc. Ent. Belg., li., 1908, p. 372.

"Black, prothorax red with a moderately broad median longitudinal band beginning at some distance from the apex and abbreviated close to past the median part; elytra grass-green; pygidium and the two or three ultimate abdominal laminæ reddish, sometimes the whole abdomen is reddish; head numerously roughly punctate in the hind part, finely punctulate towards the apex; prothorax not numerously but finely punctulate, the punctures thicker towards the sides, ampliate behind sinuate before the posterior angles, which are moderately prominent and obtuse; elytra attenuate towards the apex, a little elongated, having each three rows of punctures with the intervals broad, the intervening space more or less narrow, the first and second row punctate in the anterior part only, thence long, lineiform, the third series is linear, punctate in the anterior part only, fourth row drawing near the anterior part of the third, then disappearing; sides of elytra with four series of punctures; pygidium widely annulate punctate as usual; ventral laminæ of abdomen having each two (or one) series of punctures of a horse-shoe shape, median part of the laminæ with a series of transverse punctures, which is sometimes wanting; mesosternum sparingly thickly punctate; mesosternal process moderately large.

Length 8–11 mm.

Hab. South-West Africa, Hereroland, Windhoek.

Var. *albopunctata:* elytra with some white spots behind.

Var. *pygidialis:* pygidium with oblong annulate punctures, and less sinuate at apex."

Gen. HOMALOTHYREA, Kolb.

Homalothyrea kybele, Kolb.

Denksc. Med. Naturw. Ges. Jena, vol. xiii., 1908, p. 123.

"Similar in shape to *H. franki*, Lansb.; entirely nigro-cyaneous above with the head only black and the antennæ brownish and partly nigrescent, elytra sparingly maculated with white, the pro-

thorax however is immaculate; the whole f the under side and also the pygidium are very shiny black, the pectus and the abdomen clothed with scanty, brief whitish hairs; clypeus little sinuate; prothorax broadly but not closely conspicuously yet equally punctate, slightly sinuate laterally before the obtusely rounded obtuse angles; elytra punctate almost like in *H. franki;* legs, especially the tarsi of the hind pairs, not very slender; pygidium ocellate punctate.

Length 10 mm.

This species is perhaps only a chromatic variety of *H. franki.*

Hab. Great Namaqualand (Kubub), Hereroland."

GEN. TRICHOPLUS, Burm.

TRICHOPLUS ÆPYTUS, Kolb.,
Loc. cit., p. 123.

"Closely allied to *T. schaumi;* elongated, black, moderately shiny, very briefly and sparsely and hardly conspicuously flavopilose; head moderately convex, squamiform, clypeus simple, depressed on each side, emarginate in front, prothorax five times angular (not rounded), closely punctate, ampliated, ampliate part more rounded, angulate laterally, strongly attenuate behind, median part of the disk with a large, broad, sub-orbicular excavation, marginate in front, simple behind, and also with the anterior half strigillate in a half circle, the posterior half flat and punctate; scutellum striolate with curved lines and indistinctly carinate in the centre; elytra parallel with the shoulders rather oblique, sinuate past the humeral part, obliquely strigillate in the dorsal part, punctate towards the margin and the apex, unicostate longitudinally, the costa reaching from the base to nearly the apex and situated nearer to the suture than to the outer margin; legs simple, outer apical part of the tibiæ ending in an acuminate spine; intersegmental abdominal transverse interval between the propygidium and the pygidium clothed with a very dense, golden and fuscous spongy pilosity; mesosternum slightly carinate between the coxæ; metasternum with a median cordiform area very finely obliquely striolate and punctate, and also not carinate laterally.

Length $8\frac{3}{4}$–9 mm.

Hab. Namaqualand (Steinkopf)."

Kolbe adds that this species was found in the interior of the clay-nest (Termite mound) of the white ant, *Hodotermes viator*, Latr. The species of *Hodotermes*, however, are sub-terranean and build no mound. But they do occasionally take possession of the whole or

part of those of *Termes trinervius*, and possibly others, perhaps for foraging purposes. It was in a mound originally built by *T. trinervius*, but jointly occupied by *Hodotermes* and the true ant *Plagiolepis custodiens*, Sm., that I found *among the latter*, which harbours probably more mess-mates than any other African ant, the rare Cremastochilid *Trichoplus schaumi*. This does in all probability account for the habitat as recorded by Dr. L. Schultze. I may add that the first time I met with the Cremastoschilid, I was not sure whether it was a "commensal" of *Hodotermes*, or of *Plagiolepis* (cf. Ann. Soc. Entom. Fr., lxix., 1900, p. 67), but I am sure now that it is of the latter.—L. P.

TRICHOPLUS AGIS, Kolb.,
Loc. cit., p. 124.

"Like the preceding species, a little larger, moderately shiny; clypeus bi-carinate longitudinally, the carinæ set close to each other diverging behind; prothorax five times angular, broadly punctate, ampliate in front, the ampliated part more broadly rounded laterally, sinuate behind and bearing a large, broad, ovate dorsal fovea closely punctate, deeply excavated in front, simple behind, scutellum striolate, longitudinally carinate in the middle; elytra with the shoulders most distinctly prominent, obliquely and longitudinally striolate, slightly sub-seriately punctulate, longitudinally unicostate as in the preceding species; legs also similar but with the tibiæ shorter; mesosternum highly carinate; metasternum with a median octangular area attenuate in front, costulate line-like obliquely and longitudinally, and carinate laterally; penultimate dorsal abdominal segment (propygidium) carinulate longitudinally in the middle, interval between the propygidium and the pygidium simple (not spongy-pilose), pygidium obliquely slanting on the upper side, invisible beneath, moderately large, glabrous.

Length $10\frac{1}{8}$ mm.

Hab. Found in Namaqualand (Steinkopf) with *T. æpytus*, also in the mound of *Hodotermes viator*."

My previous remarks on the occurrence of these degenerated Cetonids apply also to this species.—L. P.

TABLE OF DISTRIBUTION OF THE SOUTH AFRICAN LUCANIDÆ, PASSALIDÆ, AND SCARABÆIDÆ.

LUCANIDÆ.

	Endemic Genera.	Doubtfully Endemic.	Non-Endemic.
			Nigidius (3)
	Colophon (1)*		Cladognathus (1)
	Oonotus (1)		Figulus (1)
	Xiphodontus (1)		

PASSALIDÆ.

		Eumelosomus (1)	

SCARABÆIDÆ.

Coprinæ	Circellium (1)	Sebasteos (4)	Scarabæus (40)
	Sceliages (2)	Pachysoma (7)	Gymnopleurus (17)
	Odontoloma (3)	Elassocanthon	Anachalcos (2)
	Byrrhidium (1)		Gyronotus (2)
	Aphengecus (1)		Epirinus (10)
			Epilissus (1)
			Sisyphus (10)
			Drepanocerus (5)
			Tiniocellus (1)
			Drepanochirus (1)
		Tapeinopterus (1)	Onitis (31)
	Xinidium (1)	Scaptocnemis (1)	Cheironitis (4)
		Tragiscus (1)	Oniticellus (7)
	Parapinotus (1)	Neonitis (1)	Onthophagus (156)
	Macroderes (6)	Delopleurus (1)	Caccobius (10)
		Saproecius (2)	Phalops (10)
			Diastellopalpus (2)
			Milichus (2)
			Pedaria (11)
			Coptorrhina (10)
			Pinacotarsus (1)
			Heliocopris (11)
			Catharsius (18)
			Copris (26)
Aphodiinæ	Harmodactylus (1)	Aphodobius (1)	Aphodius (63)
			Teuchestes (1)
	Harmogaster (2)	Coptochirus (7)	Lorditomæus (1)
	Drepanocanthus (5)	Liparochirus (1)	Sybax (2)
			Rhyssemus (5)
		Macroretrus (1)	Psammobius (3)
			Notocaulus (1)
			Pleurophorus (2)
			Corythoderus (1)
	Acanthocerodes (1)		Trox (22)

* The figures in brackets are those of the species. Their distribution in South Africa is not sufficiently known to divide them into endemic or non-endemic kinds.

	Endemic Genera.	Doubtfully Endemic.	Non-Endemic.
Chironinæ			Chiron (3)
Geotrupinæ			Bolboceras (33)
			Athyreus (2)
Hybosorinæ	Aræotanypus (2)		Hybosorus (3)
		Phæocroides (1)	Phæocrous (2)
Orphninæ			Orphnus (10)
Ochodæinæ	Chætocanthus (2)	Synochodæus (1)	Ochodæus (2)
			Drepanocanthus (1)
Dynastinæ	Pentodontoschema (6)		Heteronychus (17)
	Hyboschema (2)		Temnorhynchus (4)
	Orsilochus (1)		Pychnoschema (11)
	Callistemonus (1)		Cyphonistes (1)
	Homœomorphus (1)		Oryctes (2)
	Syrichthus (1)		Archon (1)
	Syrichthodontus (1)		Pseudosyrichthus (1)
	Syrichthomorphus (1)		Xenodorus (1)
	Pseudocyphonistes (1)		Rhizoplatys (2)
			Rhizoplatodes (1)
Rutelinæ			Adoretus (36)
	Anodontopopillia (1)	Nongoma (1)	Anomala (32)
			Peripopillia (1)
			Popillia (6)
			Gnatholabis (2)
			Tabora (1)
	Isoplia (1)		Phænomeris (3)
Hopliinæ	Chasme (3)		
	Anisonyx (15)		
	Peritrichia (24)		
	Lepitrix (10)		
	Khoïna (2)		
	Eriesthis * (10)		
	Korisaba (1)		
	Stenocnema (1)		
	Pachycnema (19)		
	Pachycnemida (1)		
	Hoplocnemis (10)		
	Dichelus † (13)		
	Heterochelus (93)		
	Omocrates (17		
	Goniaspidius (2)		
	Dicranocnemus (10)		
	Nanniscus (1)		
	Diaplochelus (3)		
	Bizanus (1)		
	Kubousa (4)		
	Platychelus (27)		
	Coega (1)		
	Idutywa (2)		
	Mitrophorus (4)		
	Monochelus ‡ (25)		

* One species is recorded from Central Africa.
† One species is recorded from East Central Africa.
‡ One species is recorded from East Central Africa.

	Endemic Genera.	Doubtfully Endemic.	Non-Endemic.
	Thabina (1)		
	Gymnoloma (12)		
	Knysna (2)		
	Outeniqua (1)		
	Gouna (2)		
	Scelophysa (3)		
	Lepisia (3)		
	Anisochelus (3)	Microplus (1)	
	Inanda (3)	Microplidus (9)	
	Blikana (1)		
	Harpina (1)		
	Nanaga (1)		
	Cylichnus (3)		
	Rabula (1)		
	Kareiga (1)	Congella (4)	Hoplia (1)
	Microdoris (1)		
Sericinæ	Pleophylla (3)	Nedymoserica (1)	Autoserica (14)
		Neoserica (4)	Lepiserica ( )
		Etiserica (1)	
		Stenoserica (3)	
		Diaphoroserica (1)	
	Hyboserica (2)	Philoserica (1)	
	Gryphonica (1)	Euronycha (4)	
		Idæserica (1)	
			Camentoserica (1)
		Mesoserica (1)	
	Dolerotarsa (1)	Allokotarsa (2)	
		Arraphytarsa (1)	
		Alogitotarsa (2)	Trochalus (18)
		Doleroserica (5)	
		Microtrachelus (1)	
			Ablaberoides (20)
		Ablabera * (16)	
		Microcamenta (3)	
			Camenta (26)
	Tulbaghia (3)		
		Oocamenta (2)	
	Paracamenta (6)	Diplotropis (2)	
	Leribe (1)	Idæcamenta (1)	
	Gamka (1)		
Melolonthinæ	Damara (1)		
	Onochæta (1)		
	Ægostetha (4)		
	Macrophylla (5)		
	Pleiophylla (1)		
	Eucylophylla (1)		
	Tlaocera (1)		
	Kraseophylla (1)		
	Pasaphylla (1)	Cyclomera (3)	
	Ramoutsa (1)	Periclitopa (4)	Clitopa (5)
	Achelyna (2)	Paraclitopa (1)	

* One species is recorded from British East Africa.

	Endemic Genera.	Doubtfully Endemic.	Non-Endemic.
Melolonthinæ	Pleistophylla (1)		
	Trichiodera (1)		
	Pseustophylla (1)		
		Aipeiopsis (2)	
	Pseudachloa (1)		
	Trichinopus (2)		
	Achloa (5)		
	Oedanomerus (1)	Sparrmannia (13)	
	Sebaris (1)		
	Beriqua (1)		Glyptoglossa (4)
			Schizonycha (82)
			Atys (10)
			Entyposis (1)
	Holisonycha (1)	Syngeneschiza (1)	
		Suntemnonycha (1)	
		Spathoschiza (1)	
	Sebakwe (1)		
	Psilonychus (8)		Coniopholis (2)
	Rhabdopholis (3)	Pegylidius (1)	Hypopholis (1)
			Pegylis (1)
			Eulepida (4)
			Asthenopholis (2)
			Brachylepis (1)
			Apogonia (5)
Cetoninæ			
Trichiini	Stegopterus (5)		
	Agenius (5)		Stripsipher (3)
	Brachagenius (2)		
	Eriopeltastes (1)		
Valgini			Calometopus (1)
			Comythovalgus (1)
			Stenovalgus (2)
Myodermini			Myoderma (1)
			Diploa (1)
		Diploeida (1)	
	Elpidus (1)		
	Xiphoscelidus (1)		
Cetonini	Xiphoscelis (1)		
	Rhinocæta (2)		
	Lipoclita		Hypselogenia (2)
			Goliathus (1)
			Hæmatonotus (1)
			Phoxomela (1)
			Micrelaphinis (6)
			Dulcinea (1)
	Elaphinis (1)		Tetragonorrhina (1)
			Psacadoptera (2)
			Anoplochilus (8)
	Goraqua (1)		
	Trichostetha (5)		
	Odontorrhina (2)		
	Ischnostoma (4)		
	Gariep (1)	Heteroclita (2)	Dicranorrhina (3)

	Endemic Genera.	Doubtfully Endemic.	Non-Endemic.
Cetonini			Ranzania (1)
			Cheirolasia (1)
			Amaurodes (1)
			Eudicella (4)
			Neptunides (1)
			Cœlorrhina (1)
			Stephanorrhina (1)
	Scythropesthes (2)	Inhambane (1)	Eccoptocnemis (2)
			Melinesthes (4)
			Smaragdesthes (1)
			Ptychodesthes (1)
			Raceloma (2)
			Tæniesthes (1)
	Mazoë (1)		Plæsiorrhina (2)
	Gnathocerida (1)		Gnathocera (2)
			Gametis (2)
			Cosmiophæna (1)
			Discopeltis (2)
		Amazula (1)	Stethodesma (1)
			Pseudoclinteria (1)
	Atrichia (1)		Pachnoda (11)
			Rhabdotis (4)
	Atrichelaphinis (3)		Niphetophora (1)
		Chirinda (1)	Porphyronota (3)
		Apocnosis (1)	Diplognatha (1)
			Clinteroides (1)
			Tephræa (2)
		Pseudoprotætia (2)	Trymodera (1)
		Acrothyrea (1)	Polystalactica (3)
		Glaucocelis (1)	
	Leptothyrea (1)	Lonchothyrea (1)	Leucocelis (12)
		Homalothyrea (1)	Mausoleopsis (4)
		Macromina (1)	Macroma (3)
			Phymatopteryx (1)
			Cymophorus (6)
			Spilophorus (1)
			Hoplostomus (1)
			Cœnochilus (11)
			Anatochilus (1)
			Plagiochilus (5)
	Proxenus (1)		
	Astoxenus (1)		Pilinurgus (1)
			Lissogenius (1)
	Trichoplus (7)		Genuchus (2)
			Nyassinius (1)
	Trogodes (1)	Myrmecochilus (1)	
	Anatonochilus (1)		
	Scaptobius (6)		
	Placodidus (1)		

CORRECTIONS IN TEXT.

Vol. I. (Vol. XII.).

Page 17 line 23 instead of *Pontodontoschema* read *Pentodontoschema.*
,, 24 ,, 26, after *strong* insert a comma, and delete the comma after *female.*
,, 25 ,, 25, instead of *hottentotum* read *hottentorum.*
,, 33 ,, 36 ,, Coleopt. Heft. read Catal. Coleopt. iv.
,, 108 ,, 26, transfer whole line above line 32.
,, 108 ,, 30, instead of B^2 read B^3.
,, 109 ,, 15 ,, *Melichus* read *Milichus.*
,, 162 ,, 12 ,, *pallipes* read *africanus.*
,, 179 ,, 2 ,, *moestus* read *discretus.*
,, 302 ,, 12 ,, *Mith.* read *Mitth.*
,, 312 ,, 31 ,, *anterior* read *antenor.*
,, 375 ,, 36 ,, *brevitarsus* read *brevitarsis.*
,, 446 ,, 6 ,, 32 ,, *Psammodius* read *Psammobius.*
,, 447 ,, 19 ,, *Psammodius* read *Psammobius.*
,, 447 ,, 19 ,, *Psammodius* read *Psammobius.*
,, 448 ,, 5 ,, 6 ,, *Psammodius* read *Psammobius.*
,, 456 ,, 6 ,, *ponderosus* read *denticulatus.*
,, 478 ,, 31 ,, *pl. xxxvi.* read *pl. xxxix.*
,, 493 ,, 23 ,, *stria* read *striæ.*
,, 493 ,, 36 ,, *grossus* read *crassus.*
,, 500 ,, 5 ,, *ovampoianus* read *ovampoanus.*
,, 507, last line, delete *it is.*
,, 509 ,, 40, instead of *tarsi* read *tibiæ.*
,, 513 ,, 40 ,, *fold of pygidium* read *propygidium.*
,, 514 line 20 ,, *corvinus* read *licas.*
,, 558 ,, 22 ,, *antennæ* read *palpi.*
,, 564 ,, 21 ,, *Heterochilus* read *Heterochelus.*
,, 578 ,, 39 ,, *fig. 29* read *fig. 35.*
,, 579 ,, 44 ,, *fig. 30* read *fig. 34.*
,, 580 ,, 40 ,, *fig. 31* read *fig. 33.*
,, 585 ,, 34 ,, a^2 read a^3, and instead of *maxillæ sharply toothed, maxillæ not toothed.*
,, 585, after line 37 insert a^2 and *maxillæ sharply toothed.*
,, 625 line 12 instead of *fertilisation* read *cross-fertilisation.*
,, 625 ,, 42 after *intended* add *only.*
,, 626 ,, 27 instead of *fertilisation* read *cross-fertilisation.*
,, 626, last line ,, *Cedearbergen* read *Cedarbergen.*
,, 633 line 25 ,, *gemmatus* read *gemmeus.*
,, 665 ,, 24 ,, *Eristhis* read *Eriesthis.*
,, 719 ,, 36 ,, *miserabilis* read *lugens.*
,, 782, delete lines 11 and 12.

Page 740 line 37 instead of *inops* read *sobrinus*.
,, 862 ,, 8 ,, *lineola* read *lineolata*.
,, 884 ,, 15 ,, *illotus* read *neglectus*.
,, 889, after line 32 insert : *Hab. Transvaal* (*Lydenburg*).
,, 896 line 33 instead of *Branes*. read *Brancs*.
,, 908 ,, 8 ,, *dubiosa* read *fraudulenta*.
,, 911 ,, 62 ,, *275* read *295*.
,, 912 ,, 31 ,, *239* read *242*.
,, 912 ,, 31 ,, *111* read *110*.
,, 916 ,, 51 ,, *Oniticellus* read *Onthophagus*.
,, 920, after line 54 insert XINIDIUM, *p. 296*.

VOL. II. (VOL. XIII.).

Page 7 line 22 instead of *maculipennis* read *fasciatipennis*.
,, 8 ,, 18 ,, *pl. xlvi., fig. 32*, read *fig. 24*.
,, 8 ,, 22 ,, *Schauz* read *Schauf*.
,, 42 ,, 34 ,, *chloris* read *lucidulus*.
,, 42 ,, 35 ,, *pecies* read *species*.
,, 42 ,, 37, read *having no frontal keel, it is* . . .
,, 46 after line 29 add *pl. xlvi., fig. 27*.
,, 47 ,, 25 add *pl. xlvi., fig. 31*.
,, 50 ,, 7 add *pl. xlvi., fig. 28*.
,, 56, lines 17 and 31, instead of *Microtrachelus* read *Microtrochalus*.
,, 57 line 28 instead of *Microtrachelus* read *Microtrochalus*.
,, 60 ,, 4, delete *striæ of*.
,, 78 ,, 9, instead of *delalandei* read *lalandei*.
,, 78 ,, 26 ,, *namaqua* read *fuscipennis*.
,, 78 ,, 37 ,, *1815* read *1818*.
,, 93 ,, 3 ,, *pusilla* read *pallidula*.
,, 115 ,, 6 ,, *7-jointed* read *6–7-jointed*.
,, 119, delete lines 19 and 20.
,, 120 line 22 instead of *1847* read *1848;* also pp. 147, 153, 166, 271, 277, 281.
,, 182 ,, 20 ,, *o* read *of*.
,, 183, last line instead of *Beitz*. read *Beitr*.
,, 188 line 7 ,, *9* read *fig. 49*.
,, 210 ,, 20 ,, *fig. 40* read *fig. 49*.
,, 225 ,, 7, add after citima, *n. spec*.
,, 226 ,, 36, instead of *acuminate* read *truncate*.
,, 234 ,, 12 ,, *pl. li.* read *pl. xli*.
,, 235 ,, 8 ,, *fig. 24* read *fig. 39a*.
,, 239 ,, 5 ,, *fig. 13* read *fig. 51*.
,, 240 ,, 8 ,, *algoa* read *algoensis*.
,, 240 ,, 9 ,, *xliii.* read *pl. xli*.
,, 244, after line 27 insert *pl. xliii., fig. 46*.
,, 245 line 18 instead of *fig. 67* read *fig. 47*.
,, 250 ,, 24 ,, *60* read *59*.
,, 276 ,, 5 ,, *fig. 27* read *fig. 22*.
,, 287 ,, 1 ,, *sub-fasciata* read *subfasciatus*.
,, 290, last line, read *mashona*.
,, 294 line 10 insert *first* before *dorsal*.

Page 294 line 25 ,, *horizontally* before *underneath.*
,, 295 ,, 14, instead of CETONONI read CETONINI.
,, 295 ,, 18 ,, *macromima* read *macromina.*
,, 313 ,, 21, after *differs* add *nevertheless.*
,, 313 ,, 27, instead of *scutellem* read *scutellum.*
,, 323 ,, 16, insert a comma after *intrusion.*
,, 323 ,, 17 ,, ,, *coxæ.*
,, 324 ,, 26, instead of *elytra, striæ* read *elytral striæ.*
,, 324 ,, 32, after *Clinteroides* delete *;* and add *, but although.*
,, 339 ,, 33 instead of *Mith.* read *Mitth.*
,, 340 ,, 36 ,, *numisnatica* read *numismatica.*
,, 343 after line 5 insert *pl. xlvii., figs. 3, 3a.*
,, 355 ,, 7 insert *pl. xlviii., fig. 29.*
,, 357 ,, 26 insert *pl. xlviii., fig. 30.*
,, 371 line 4, instead of *Stethosdesma* read *Stethodesma.*
,, 375 ,, 21 ,, *albomarginata* read *albomaculata.*
,, 379 ,, 7, after *Gariep* delete comma.
,, 379 ,, 30 instead of *C. lorigera* read *C. loricata.*
,, 397 ,, 43 ,, , ,,
,, 398 ,, 4 ,, ,, ,
,, 403 ,, 11 ,, *Inhambana* read *Inhambane.*
,, 404 ,, 2, instead of *xii.* read *ii.*
,, 429 ,, 12 ,, STETHOSDEMA read STETHODESMA.
,, 439 ,, 37 after *margins* add *of the elytra.*
,, 441 ,, 21 instead of *Protaetia* read *Pachnoda.*
,, 457 ,, 39 ,, *gagate* read *gagates.*
,, 466, after line 13 insert *pl. xlviii., fig. 31.*
,, 490 line 29, instead of *fits* read *fit.*
,, 491 ,, 1 ,, *spiracle of which is* read *spiracles of which are.*
,, 492 ,, 2 ,, *macromima* read *macromina.*
,, 517 ,, 1 ,, ANATOCHILUS read ANATONOCHILUS.
,, 552 ,, 34 ,, *fig. 19* read *fig. 10.*
,, 535 ,, 8 ,, *pl. xlv.* read *pl. xlvi.*
,, 576, after line 6. The description of *Onthophagus marshalli* goes to complete d'Orbigny's original description, which will be found on p. 612.

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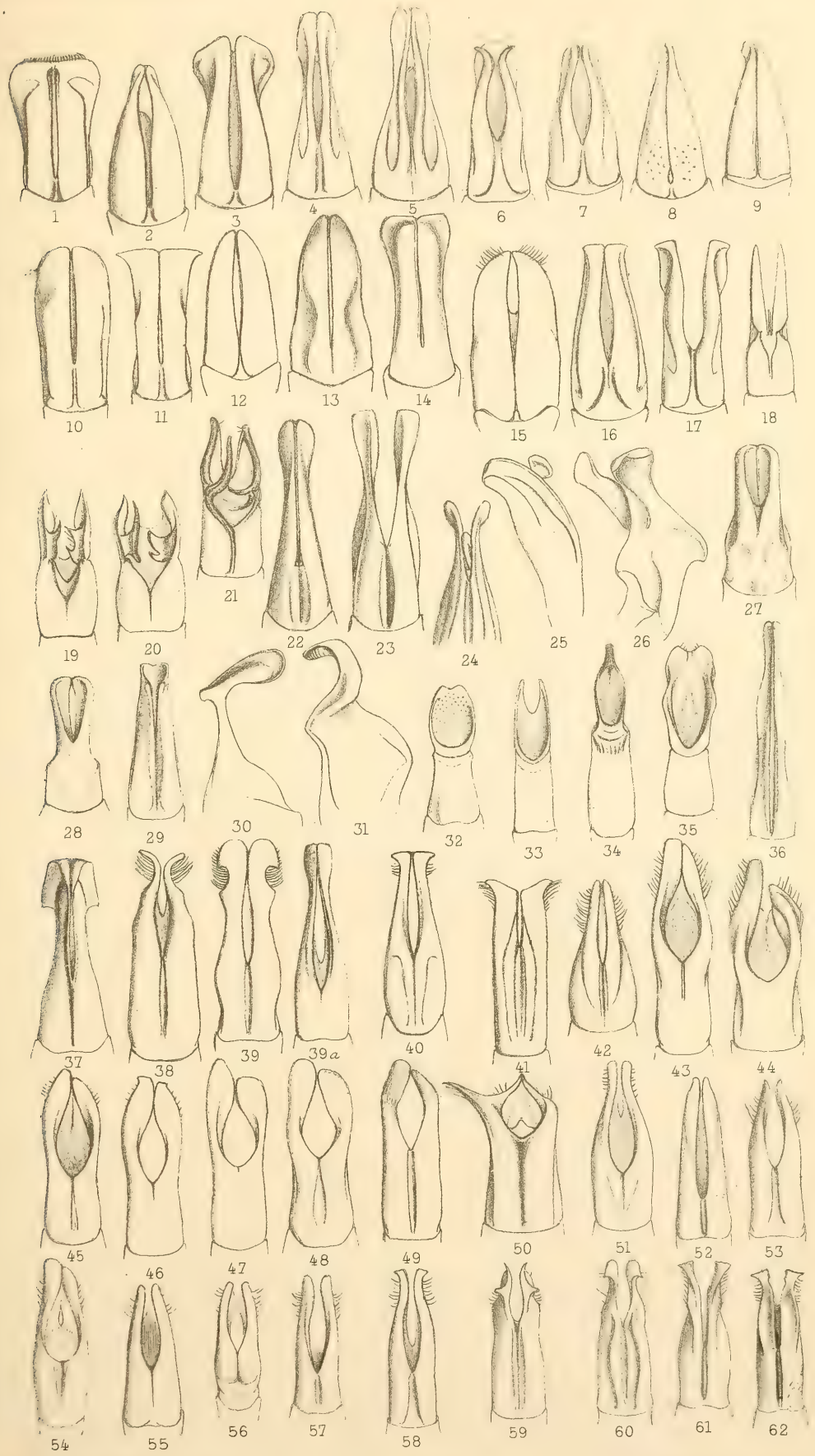
EXPLANATION OF PLATES XLIII.; XLVI.–XLVIII. OF THE CATALOGUE (Plates I ; IV–VI. of Vol. XIII.).

Plate XLIII. (i. of vol. xiii.).

1. Genitalia of Rhabdotis albinigra ♂.
2. ,, of Rhabdotis semipunctata ♂.
3. ,, of Rhadbotis sobrina ♂.
4, 5. ,, of Porphyronota carnifex ♂.
6. ,, of Porphyronota maculatissima ♂.
7. ,, of Porphyronota hebræa ♂.
8, 9. ,, of Diplognatha gagates ♂.
10. ,, of Pachnoda cincta ♂.
11. ,, of Pachnoda rufa ♂.
12. ,, of Trichostetha albopicta ♂.
13. ,, of Trichostetha signata ♂.
14. ,, of Atrichia placida ♂.
15. ,, of Trichostetha capensis ♂.
16, 17. ,, of Genyodonta flavomaculata ♂.
18. ,, of Pleophylla tongaatsana ♂.
19, 20. ,, of Pleophylla fasciatipennis ♂.
21. ,, of Pleophylla navicularis ♂.
22. ,, of Rhabdopholis albostriata ♂.
23. ,, of Rhabdopholis costipennis ♂.
24, 25. ,, of Coniopholis lepidiota ♂.
26. ,, of Coniopholis proxima ♂.
27. ,, of Psilonychus gracilis ♂.
28. ,, of Psilonychus deridens ♂.
29. ,, of Psilonychus eckloni ♂.
30. ,, of Eulepida anatina ♂.
31. ,, of Eulepida mashona ♂.
32. ,, of Adoretus simulans ♂.
33. ,, of Adoretus disparilis ♂.
34. ,, of Adoretus simplex ♂.
35. ,, of Adoretus uniformis ♂.
36. ,, of Hypopholis sommeri ♂.
37. ,, of Pegylidius mashunus ♂.
38. ,, of Schizonycha salisburiana ♂.
39. ,, of Schizonycha spectabilis ♂.
39*a*. ,, of Schizonycha egens ♂.
40. ,, of Schizonycha confinis ♂.
41. ,, of Schizonycha exacerbans ♂.
42. ,, of Schizonycha paupercula ♂.
43. ,, of Schizonycha noscitata ♂.
44. ,, of Schizonycha scabiosa ♂.
45. ,, of Schizonycha fatidica ♂.
46. ,, of Schizonycha rugosa ♂.
47. ,, of Schizonycha indotata ♂.



Héliog. Dujardin Paris.

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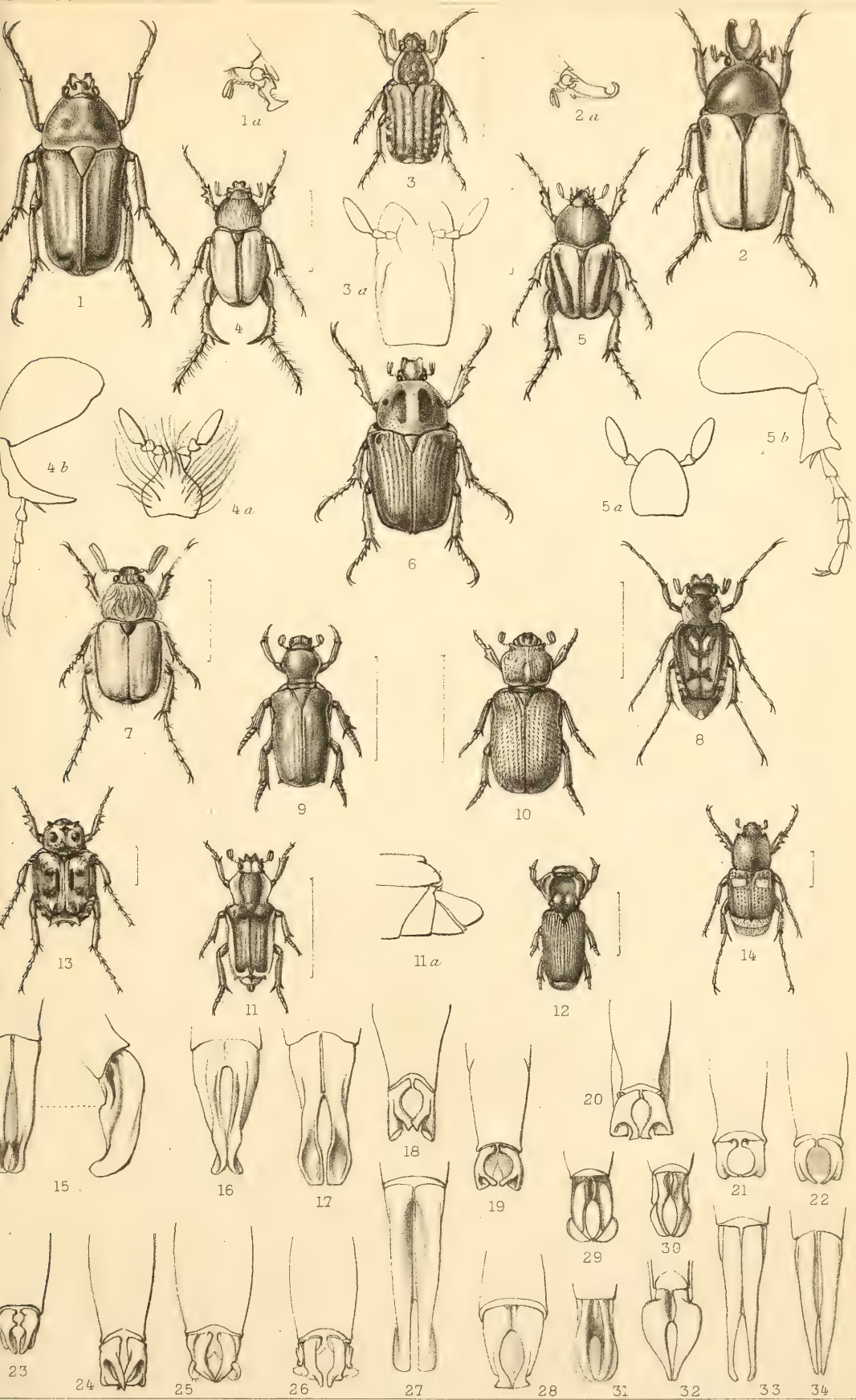

L. Dujardin. Paris.

48. Genitalia of Schizonycha nigricornis ♂.
49. ,, of Schizonycha inedita ♂.
50. ,, of Schizonycha vaalensis ♂.
51. ,, of Schizonycha russula ♂.
52. ,, of Schizonycha comosa ♂.
53. ,, of Schizonycha dissensa ♂.
54. ,, of Schizonycha vicaria ♂.
55. ,, of Schizonycha ovampoana ♂.
56. ,, of Schizonycha ignava ♂.
57. ,, of Schizonycha idonea ♂.
58. ,, of Schizonycha ciliata ♂.
59. ,, of Schizonycha inops ♂.
60. ,, of Schizonycha quæsita ♂.
61. ,, of Schizonycha citima ♂.
62. ,, of Schizonycha valida ♂.

Plate XLVI. (iv. of vol. xiii.).

1*a*. Fore tarsi of Euronicha ♂.
1*b*. Under side of same.
. ,, of Gryphonica puberula ♂.
. ,, of Diaphoroserica ♂.
,, of Allokotarsa ♂.
5 ,, of Anomalotarsa ♂.
6. Fore claw of Camenta.
7. ,, of Pseudocamenta.
8. ,, of Tulbaghia.
9. ,, of Ceratogonia ♂.
10. ,, of Ablabera.
11. Fore tarsi of Arraphytarsa ♂.
12. Genitalia of Eulepida tschindeana ♂.
13. Head and clypeus of Tulbaghia lightfooti.
14. ,, ,, of Camentoserica livida.
15, 15*a*. Head of Allokatarsa clypeata.
16. Head of Ceratogonia marshalli ♂.
17. ,, of Apogonia ovata ♂.
18. Genitalia of Lepiserica tessellata ♂.
19. ,, of Lepiserica proteana ♂.
20. ,, of Lepiserica lucidula ♂.
21. ,, of Lepiserica australis ♂.
22. ,, of Lepiserica zoutpaniana ♂.
23. ,, of Neoserica transvaalensis ♂.
24. ,, of Pleophylla fasciatipennis ♂ (?).
25. ,, of Neoserica natalensis ♂.
26. ,, of Neoserica carneola ♂.
27. ,, of Trochalus exasperans ♂.
28. ,, of Trochalus bohemani ♂.
29, 30. ,, of Trochalus mashunus ♂.
31. ,, of Trochalus byrrhinus ♂.
32. Fore claw of Sebaris palpalis.
33. Left fore claw of Hypopholis sommeri.

34. Fore claw of Pegylidius mashunus.
35. ,, of Pegylis conspurcata.
36. Fore claw of Sparrmannia flavofasciata ♂.
37. ,, of ,, ,, ♀.
38. ,, of Sparrmannia vertumnus ♂.
39. ,, of ,, ,, ♀.
40. Genitalia of Sparrmannia vertumnus ♂.
41. ,, of Sparrmannia namaqua ♂.
42. ,, of Sparrmannia boschimana ♂.
43. ,, of Sparrmannia gonaqua ♂.
44. ,, of Sebaris palpalis ♂.
45. ,, of Sparrmannia flavofasciata ♂.
46. ,, of Sparrmannia prieska ♂.
47. ,, of Sparrmannia distincta ♂.
48. ,, of Sparrmannia capicola ♂.
49. ,, of Glyptoglossa dispar*.
50. ,, of Glyptoglossa lurida ♂.
51. ,, of Glyptoglossa burmeisteri ♂.
52. ,, of Glyptoglossa namaquensis ♂.
53. ,, of Beriqua modesta ♂.
54. ,, of Schizonycha increta ♂.
55. Trichoplus paradoxus.

Plate XLVII. (v. of vol. xiii.).

1, 1*a*. Stephanorrhina simplex.
2, 2*a*. Melinesthes hamula.
3, 3*a*. Micrelaphinis nigritula.
4, 4*a*, 4*b*. Xiphoscelidus lugubris.
5, 5*a*, 5*b*. Elpidus hopei.
6. Apocnosis striata.
7. Stegopterus natalensis.
8. Calometopus nyassæ.
9. Astoxenus amicus.
10. Proxenus squamiger.
11, 11*a*. Myrmecochilus marshalli.
12. Trichoplus incisus.
13. Comythovalgus fasciculatus.
14. Stenovalgus bimaculatus.
15, 15*a*. Genitalia of Cœlorrhina 4-maculata ♂.
16. Genitalia of Eccoptocnemis barthi ♂.
17. ,, of Eccoptocnemis relucens ♂.
18. ,, of Leucocelis rubra ♂.
19. ,, of Leucocelis hæmorhoidalis ♂.
20. ,, of Leucocelis amethystina ♂.
21. ,, of Leucocelis adspersa ♂.
22. ,, of Leucocelis natalica ♂.
23. ,, of Leucocelis testaceoguttata ♂.
24. ,, of Mausoleopsis rubriceps ♂.

* Figs. 50, 51, 52 not being quite correct, reliable ones are given in Plate XLVIII.

Heliog Dujardin Paris

25. ,, of Mausoleopsis amabilis ♂.
26. ,, of Mausoleopsis luctifera ♂.
27. ,, of Leptothyrea perroudi ♂.
28. ,, of Chirinda sylvatica ♂.
29. Genitalia of Anoplochilus odiosus.
30. ,, of Anoplochilus tomentosus.
31. ,, of Pseudoprotaetia aspersa.
32. ,, of Pseudoprotaetia amakosa ♂.
33. ,, of Polystalactica sansibarica ♂.
34. ,, of Polystalactica furfurosa ♂.

Plate XLVIII. (vi. of vol. xiii.).

1, 2. Diastellopalpus orbignyi ♂.
3, 4. Onthophagus placens.
5, 6. Onthophagus decedens.
7, 8, 9. Bolboceras capicola ♂.
10, 11, 12. Onthophagus prætortus ♂.
13, 14. Athyreus rhodesianus.
15. Onthophagus rhynchophorus.
16, 17. Milichus rhodesianus.
18. Onthophagus serenus.
19, 20. Onthophagus rectefurcatus ♂.
21, 22, 23. Anomala pertinax ♂.
24, 25. Genitalia of Schizonycha howickiana ♂.
26, 27. ,, of Schizonycha matabelena ♂.
28, 29. ,, of Schizonycha disputabilis ♂.
30, 31, 32. Heteronychus mosambicus, and genitalia ♂.
33, 34. Genitalia of Heteronychus inops ♂.
35, 36. ,, of Heteronychus beiranus ♂.
37, 38, 39. Adoretus beiranus, and genitalia ♂.
40, 41. Genitalia of Glyptoglossa namaquensis ♂.
42, 43. ,, of Glyptoglossa dispar ♂.
44, 45. ,, of Glyptoglossa burmeisteri ♂.
46. ,, of Schizonycha ambigua ♂.

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